

REPORT
OF THE
COMMITTEE FOR THE PREVENTION
OF
CRUELTY TO ANIMALS



MINISTRY OF FOOD AND AGRICULTURE
(Department of Agriculture)

GOVERNMENT OF INDIA
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CHAPTER I.

INTRODUCTORY

Origin.

While moving 'The Prevention of Cruelty to Animals Bill, 1953' (Appendix II) in the Council of States (Rajya Sabha) on the 5th March, 1954, Shrimati Rukmini Devi Arundale observed as follows :—

"I believe that it is of tremendous importance to India owing to the growing sentiment of the people towards the abolition of many cruelties which they had once thought were necessary. It is necessary that we should be in advance of the ordinary ignorant ideas on this subject and that there should be legislation to prevent too many cruelties that are taking place. I know very well that legislation in itself is not sufficient, because there are many cruelties which take place today even against the law. Side by side with legislation, there must be education, the education of the public, the education of youth and even the education of those who are educated, because most of us are ignorant of the many things that are taking place.....The prevention of cruelty to animals is a fundamental issue, for, if we are really going to follow the ideas of Ahimsa, we should go to the root of the problem. It is not enough to say that we believe in Ahimsa; we must try to put it into practice, especially as we have accepted the emblem of Asoka, which is in essence compassion, kindness and justice to all. It is our duty to try to live up to it....."

"India must set a great example to all countries in the world. We must set the example not because I think we are superior but because we have spoken about Ahimsa far more than any other country. The very word Ahimsa comes from India; it belongs to us; we have that tradition. We have had examples, great examples in history of Ahimsa, and kings like Asoka have practised these things. So, the more we talk about it, the greater is the responsibility to put it into practice and that is why I believe that such a Bill as this is absolutely necessary."

2. During the debate on the Bill, the Prime Minister observed as follows:—

"....I do not know what most of the Members of this House have felt after hearing the moving speech of the hon'ble Member who has put forward this motion. I presume that most of them must have listened to her with a very great deal of sympathy and agreed with many of the principles she has laid down. Indeed, how can any one of us disagree with the basic approach which she has put forward? Nevertheless, in reading through this Bill one sees so many things attempted to be done....."

"We have a Prevention of Cruelty to Animals Act, I think, passed in 1890. It is our misfortune that even today that Act is hardly applied in this country. Much can be done no doubt in improving it and going much further. For my part, I would not mind—I would in fact welcome—the idea of this whole subject being thoroughly gone into to find out what we can do about it...."

"I have no objection to the further consideration of this Bill if the House so desires it....."

"Of course, it is as well for us—absolutely right for us—to consider this question of preventing any cruelty to animals not only because of the animals themselves but much more so, as the hon'ble the Mover said, because of the human being involved in it; it is a debasing thing for the person who indulges in this cruelty. Perhaps the effect is worse in his case than in those who suffer that cruelty.....

"If we go back to the history of civilization, it has been one of struggle and it has been one of the growth of the idea of compassion. I entirely agree with the hon'ble the Mover that one test of civilization—a very major test—is the growth of this feeling and practice of compassion.....

"Therefore, I would suggest to the House that the Government attitude is that we do not wish to come in the way of further consideration, but we do think that there are a number of clauses in this Bill with which we do not agree.....

"We would prefer the hon'ble the Mover, with the consent of the House, not to proceed with this matter on the understanding that Government will very soon appoint a Committee to consider the various things contained in this Bill."

On this assurance the Bill was withdrawn.

Appointment

3. The Committee was appointed by the Government of India by a Resolution of the Ministry of Food and Agriculture, No. F. 2-136/53-PC.II., dated the 16th August, 1954. The Resolution reads as follows:—

"During the debate on 'The Prevention of Cruelty to Animals Bill, 1953' of Shrimati Rukmini Devi Arundale in Council of States on the 5th March, 1954 it was announced that a Committee would be appointed to consider the adequacy of the existing provisions of various laws for the prevention of cruelty to animals in the country and other allied matters.

"2. The Government of India are of the view that the time has come for a thorough enquiry into the present position relating to prevention of cruelty to animals and that only after such a detailed enquiry a decision can be taken as to what further steps are necessary in this direction. The Government of India have, therefore, decided to set up the following Committee:—

1. Shri V. K. Krishna Menon	..	..	..	..	Chairman
2. Shrimati Rukmini Devi Arundale	..	..	..	..	Member
3. Dr. M. D. D. Gilder	..	..	..	..	"
4. Shri Kakasaheb Kalelkar	..	..	..	..	"
5. Prof. N. R. Malkani	..	..	..	..	"
6. Shrimati Lakshmi N. Menon	..	..	..	..	"
7. Shri Dewan Chand Sharma	..	..	..	..	"
8. Dr. Syed Mahmud	..	..	..	..	"
9. Shri G. Srinivasa Murty (of School of Indian Medicine)	..	..	..	..	"
10. Commissioner, Animal Husbandry, Government of India	..	..	..	..	"
11. Inspector-General of Forests, Government of India	..	..	..	..	"
12. Dr. K. Mitra, Asstt. Director-General of Health Services, Government of India	..	..	..	..	"
13. Shri R. L. Mehta, I. A. S., Deputy Secretary, Ministry of Food and Agriculture	..	..	..	..	Secretary

"3. The Committee shall go into the whole question relating to prevention of cruelty to animals and will in particular:—

- (i) examine the present legislation on the subject and the practical and administrative difficulties in the implementation of that legislation;
- (ii) examine corresponding legislation in other civilized countries;
- (iii) examine and clearly define the word "animal" for the purpose of this legislation; and
- (iv) having regard to (a) the requirements of scientific research and medical and veterinary treatment, (b) the nutritional and non-vegetarian dietary requirements of the population, (c) the most modern practices for the slaughter of animals, (d) the game and wild life legislation in various civilized countries, (e) the conditions governing import and export of animals, (f) the requirements of scientific and nature study in so far as confinement of animals is concerned, and (g) the requirements of public entertainment in so far as exhibition and performances of animals are concerned, make such recommendations as are considered necessary.

"4. The Committee shall have access to such official records as are necessary for the purposes of the enquiry and shall undertake such touring as may be necessary. The Government of India trust that the State Governments and all other official and non-official bodies will give full co-operation in order to facilitate early completion of the enquiry by this Committee.

"Ordered that a copy of this Resolution be communicated to all the State Governments, all Ministries of Government of India, Cabinet Sectt., Prime Minister's Sectt., Lok Sabha Sectt., Council of States Sectt., the Private and Military Secretaries to the President, Planning Commission, the Auditor-General of India, the Accountant-General, Central Revenues, the Deputy Accountant-General, Food & Rehabilitation, the Indian Council of Agricultural Research, the Inspector-General of Forests and the Director-General of Health Services.

"Ordered also that this Resolution be published in the Gazette of India, for general information.

(Sd.) H. M. PATEL
Secretary "

4. Since the constitution of the Committee the following additions to and alterations in its personnel have taken place:—

(i) Dr. P. Subbarayan, M.P. was appointed as an additional Member on the 13th September, 1954. He resigned on the 22nd June, 1956; owing to his other pre-occupations, he was not able to attend to the work of the Committee.

(ii) Dr. Syed Mahmud resigned from the membership of the Committee on the 27th December, 1954 and in his place Pt. Munishwar Dutt Upadhyaya, M.P. was appointed on the 28th February, 1955. Pt. Upadhyaya resigned on the 20th December, 1955 and

Shri Krishna Chandra, M.P. was appointed Member to take his place on the 30th December, 1955.

(iii) On the 17th March, 1955 the Committee elected Shrimati Rukmini Devi Arundale as the Vice-Chairman.

(iv) Consequent on the promotion of Shri R. L. Mehta, I.A.S., as Joint Secretary and Director-General, Food, Shri S. Parmeshwaran, Deputy Secretary, Ministry of Food and Agriculture was appointed Secretary on the 10th August, 1955. Shri R. L. Mehta took over again as Secretary on the 6th December, 1955 on the transfer of Shri Parmeshwaran to another Ministry.

(v) To assist the Committee in the consideration of the legal aspects of its work, Shri G. R. Rajagopal, Additional Secretary and Chief Draftsman, Ministry of Law was appointed as an additional Member on the 10th September, 1955.

(vi) Shri Ahmed Mohiuddin, M.P. was appointed as an additional Member on the 20th December, 1955.

(vii) Consequent on the resignation of the Animal Husbandry Commissioner to the Government of India from the membership of the Committee, the Cattle Utilization Adviser to the Government of India was appointed Member in his place on the 30th December, 1955.

(viii) Shri V. K. Krishna Menon resigned from the Chairmanship of the Committee on his appointment as the Union Minister Without Portfolio. Shri V. B. Gandhi, M.P. was appointed Chairman in his place on the 1st June, 1956.

Collection of literature from India and abroad

5. The first task to which the Committee addressed itself was to collect literature bearing on the question of prevention of cruelty to animals from within India as well as from abroad for a comparative study of the subject. In due course a large volume of literature including existing legislative enactments on different aspects of prevention of cruelty to animals was secured. This was studied and its salient features circulated to the Members.

Questionnaire

6. By the end of April, 1955, the Committee finalised its Questionnaire which is given in Appendix III. To elicit information and opinion on all aspects of the various problems covered by the Committee's terms of reference, the Questionnaire was divided into the following ten parts:—

- I. Animal welfare in general.
- II. Keeping or confining animals.
- III. Transport of animals.
- IV. Performing animals.
- V. Prohibition of export or import of animals in certain cases.
- VI. Animal experimentation.
- VII. Prohibition of cruelty in sport.
- VIII. Prohibition of cruelty in the name of religion.
- IX. Humane slaughter.
- X. Treatment and care of animals.

The Questionnaire was issued in May, 1955 to more than 1,500 organizations and individuals. The organizations included all State Governments, local bodies, medical colleges, research institutions, humanitarian organizations, etc. in India. It was also sent to prominent humanitarian organizations and individuals abroad. In response to requests received from some persons as well as humanitarian organizations in India the Questionnaire was translated into Hindi and copies of the Hindi version supplied to those who had asked for them. A list of the organizations and persons who replied to the Questionnaire is given in Appendix IV.

7. The last date fixed for the receipt of the replies to the Questionnaire was the 10th July, 1955, but very few replies were received by that date, and as a large number of humanitarian bodies and individuals asked for extension, the last date had to be extended twice, first to the 8th August, 1955 and then to the 15th September, 1955. By the end of the September, 1955 replies had come from the majority of organizations and individuals addressed, though some replies continued to be received even afterwards. The following table gives an analysis of the replies to the Questionnaire:—

	No. addressed	Replies received
INDIA		
1. Secretaries to the Departments of Agriculture, Forest and Animal Husbandry of State Governments	27	25
2. Directors of Animal Husbandry	27	14
3. Directors of Public Health	5	5
4. Administrative Medical Officers	29	19
5. Chief Conservators of Forests	28	11
6. Development Commissioners	27	7
7. Governors, Rajpramukhs and Chief Commissioners of States ..	26	11
8. Chief Ministers of States	24	2
9. Municipalities	315	150
10. Corporations	9	7
11. District Boards	190	97
12. Medical Colleges	34	26
13. Veterinary Colleges	10	7
14. Institutions which manufacture sera and vaccines	19	7
15. Public Health Laboratories	31	12
16. Medical Research Institutions	18	15
17. S. P. C. As.	68	34
18. Gaushalas and Pinjrapoles	167	34
19. Humanitarian Organizations	172	52

India—*contd.*

		No. addressed	Replies received
20. Practitioners of Allopathy, Homoeopathy, Ayurveda and Unani systems of medicine .. .. .	.. .. .	54	28
21. Individuals .. .. .	.. .. .	130	55
	TOTAL ..	1,506	622

FOREIGN COUNTRIES

22. Humanitarian Organizations and Individuals	90	42*
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It will be seen that replies were received from nearly 42% of the organizations and persons addressed. The response from the Agriculture, Forests and Animal Husbandry Departments of States, Directors of Public Health, Chief Conservators of Forests, Local Bodies, Administrative Medical Officers, Medical College, Veterinary Colleges, Sera and Vaccines-manufacturing Institutions, Medical Research Institutions, S.P.C.As. and individuals in India was fairly satisfactory. Organizations and individuals in foreign countries also showed commendable interest in the Questionnaire.

Oral Evidence

8. In October, 1955, the Committee started touring different parts of the country with a view to collecting oral evidence to supplement the data collected from the replies to the Questionnaire. The places visited by the Committee and the dates on which they were visited are given below:—

Place visited	Date
Madras	6th and 7th October, 1955.
Kurnool	8th and 9th October, 1955.
Hyderabad	10th and 11th October, 1955.
Patna	6th and 7th November, 1955.
Calcutta	8th, 9th, 10th and 11th November, 1955.
Bombay	8th, 9th, 10th and 11th January, 1956.
Poona	12th and 13th January, 1956.
Amritsar	25th and 26th February, 1956.
Delhi	30th November, 1955, 9th, 11th, 19th and 20th, March, and 2nd May, 1956
Bareilly	15th March, 1956.
Lucknow	16th, 17th and 18th March, 1956.
Jaipur	7th, 8th and 9th April, 1956.
Mysore	6th July, 1956.

*Includes replies received from certain individuals who were not addressed.

9. In consultation with the State Governments concerned at all these places the Committee invited persons representing different interests to give oral evidence. The total number of witnesses examined was 310, including representatives of S.P.C.As. and other humanitarian organizations, medical authorities and research workers, Government officials, representatives of local bodies, persons interested in the cause of animal welfare, etc. At most of these places the Committee had the privilege of hearing the views of the Chief Ministers, Governors and Rajpramukhs. Besides the examination of witnesses, the Committee visited, at these places, institutions which were of interest to it from the point of view of its enquiry, *e.g.*, S.P.C.A. hospitals, pinjrapoles, gaushalas, Khatala, medical colleges, research institutions, veterinary colleges, municipal slaughter-houses, lethal chambers, places of religious sacrifice, zoos, one circus, etc. It also visited one typical Gosadan in Uttar Pradesh. A list of the witnesses examined by the Committee is given in Appendix V. Appendix VI gives the list of the institutions visited.

Meetings

10. The Committee held 17 meetings. All except three meetings were held in New Delhi. Those outside New Delhi were held in Poona (on 12th January, 1956), Jaipur (on 9th April, 1956) and Bangalore (from 1st to 5th July, 1956).

Acknowledgment

11. The Committee wishes to express its thanks to the State Governments and their officials who gave whole-hearted co-operation in its work during its tours. The Committee is also grateful to all those who replied to its Questionnaire and to the witnesses who, sometimes at considerable inconvenience to themselves, came to give evidence. The Committee is particularly thankful to the Chief Ministers, the Governors and the Rajpramukhs of the States visited by it who were kind enough to give it the benefit of their views on different aspects of its enquiry.

12. The Committee is glad to record that all its Members have worked as a team in the fulfilment of the task assigned to it. It is particularly grateful to one of its members, Shri G. R. Rajagopal, Additional Secretary and Chief Draftsman, Ministry of Law, Government of India, who gave it the benefit of his legal knowledge and undertook the onerous task of drafting the Prevention of Cruelty to Animals Bill appended to the Report. The Committee also wishes to record its warm appreciation of the services of its Secretary, Shri R. L. Mehta, I.A.S., Joint Secretary, Ministry of Agriculture. His intelligent grasp of the matters connected with the work of the Committee was of great help and the Committee is pleased to record that he discharged his duties most efficiently and to its entire satisfaction. The Committee also desires to place on record its great appreciation of the work done by Shri P. D. Srivastava, Officer on Special Duty. The brunt of efforts of the administrative and supervisory work and the work connected with the tours of the Committee fell on him and he did it almost ungrudgingly and efficiently. The rest of the staff, too, worked with zeal and deserve thanks and appreciation of the Committee.

CHAPTER II

CRUELTY TO ANIMALS GENERALLY AND GROWTH OF LEGISLATION FOR THE PREVENTION OF CRUELTY TO ANIMALS IN INDIA

What is cruelty?

13. Most of the laws on the prevention of cruelty to animals existing in India or in other countries have not defined the word 'cruelty'. They have simply stated various forms of cruelty commonly practised on animals and have prescribed penalties of a varying order, depending upon the kind or degree of the cruelty inflicted. The Prevention of Cruelty to Animals Act, 1890 of India also specifies certain typical acts of cruelty and seeks to punish those who indulge in them. The Animal Protection Act of Queensland, 1901, however, defines 'cruelty' as "the intentional or deliberate infliction upon any animal of pain that in its kind or degree or object or circumstances is unreasonable or wanton or malicious".

The Law Lexicon defines it as follows:—

"'Cruelty' designates the ordinary propensity which, if not overpowered by a better principle, will invariably show itself by the desire of inflicting positive pain on others or abridging their comfort."

Some of the witnesses whom the committee examined attempted to define the term 'cruelty'. According to some, 'cruelty' may mean a conscious or deliberate attempt to inflict unnecessary or avoidable suffering on animals. In the Oxford Dictionary, 'cruelty' is defined as indifference to or delight in another's pain. The view most widely subscribed to is that infliction of unnecessary or avoidable pain or suffering on animal is 'cruelty'.

14. 'Cruelty' can take diverse forms and as such it may be inappropriate and difficult to define it, particularly for the purpose of legislation. This is the chief reason why the laws on the prevention of cruelty to animals have generally fought shy of defining this term. To judge whether the pain or suffering caused by an act to an animal was unnecessary or avoidable is a difficult task. The Committee, therefore, feels that so far as the use of the term 'cruelty' in any law is concerned, instead of defining it, it may be desirable to specify various forms of cruelty commonly practised on animals and leave it to the courts to evolve their own meaning of the word 'cruelty' as each offence is brought for trial before them. In addition, there should be a general provision in the legislation for punishing such acts as involve unnecessary pain or suffering to animals. So far as the use of this term for other purposes is concerned, 'cruelty' may be broadly taken to mean infliction of unnecessary or avoidable pain or suffering on an animal.

Classification of cruelties to animals

15. Broadly speaking, cruelty to animals is of three types against which appropriate preventive measures have to be taken, viz., (i) cruelties inflicted on animals through indifference, carelessness, ignorance or callousness of man, (ii) cruelties perpetrated on animals on account of certain

customs and religious beliefs, and (iii) cruelties arising out of man's indifference during the times of natural calamities, disease and suffering.

16. In the opinion of the Committee most of the cruelties commonly practised on animals are the result of man's indifference, callousness or ignorance. Sometimes man is compelled by circumstances to be cruel to animals; owing to poverty he cannot feed his animals well, while at the same time he has to keep them to earn his bread.

Cruelties inflicted by man

17. The first two classes of cruelties, mentioned in para 15 above, inflicted by man present the major problem. These cruelties assume various forms some of which are described below :—

(i) Man has left animals to remain underfed and starved. He has kept many animals to plough his fields, to pull his carts and for other purposes without caring whether he has enough to feed them. This results in under-feeding, mal-nutrition and starvation which are reflected in the emaciated condition of our animals with sunken eyes, arched backs and half-filled bellies. Mal-nutrition is a constant and widespread form of cruelty, although not many regard it as such.

(ii) There are also other forms of cruelties like over-loading, over-working, etc. Emaciated and puny bullocks and he-buffaloes pulling with great difficulty the over-loaded country carts with iron tyres are a common sight both in towns and villages. Animals in a poor state of health are made to work and thus put to a great suffering.

(iii) There is a tremendous amount of cruelty involved in the transport of animals by rail, road and sea.

(a) *By rail* : Animals transported by rail from one place to another are subjected to all manner of cruelty. The railway wagons in which they travel are closed and have very little ventilation. Often there are no attendants with the animals to see that they are fed and watered at suitable intervals. The wagons, made as they are of steel, get heated during the summer months causing great suffering to the animals packed in them. Loose shunting of wagons containing animals cause them serious injuries.

(b) *By road* : On roads, animals are carried mostly in lorries and country carts. Fowls, ducks, etc. are often carried by people holding their legs with their bodies hanging down (in the air). Even tiny calves are made to travel long distances. Animals which are taken from villages to slaughter-houses have to travel long distances almost without food and water and exposed to sun, rain, etc. Trucks carrying animals are generally driven in such a careless manner that the animals are tossed against each other and against the walls of the trucks. Often they get injured seriously.

(c) *By sea* : Animals and birds exported from India are transported mostly by sea. The conditions of transport by sea are far from satisfactory and involve a good deal of avoidable suffering. There is overcrowding in the pens

in which animals are confined during the voyage; there is lack of proper ventilation and adequate lighting in the compartments in which they are kept. The supply of food and water is also inadequate. Animals are not accompanied by attendants during the voyage.

(iv) Animals such as monkeys, rabbits, birds, etc. confined in very small cages, struggling and shrieking on account of overcrowding and for want of food and water for long periods, are often seen at the platforms of railway stations. Baskets containing poultry for sale are stacked one on top of the other in markets. The birds are injured; suffocated and some even killed. Khatalas in which cows and buffaloes in milk are kept by dealers, are often dirty dungeons of slushy mud with little access to light and air. Insects and vermin abound, spreading disease. Stables where horses are kept are also dirty and ill-ventilated. The animals and birds kept in our zoos hardly get the natural habitat to which they are used in forests. Cattle are overcrowded in cattle pounds and are not fed properly there. They are mostly exposed to the rigours of weather during the period of detention.

(v) Unregulated hunting and shooting of wild animals and birds cause a tremendous amount of suffering to them. Inexpert 'Shikaris' instead of killing the animal wound it and leave it to die slowly of festering sores. Poachers do not follow the rule of the game and thus cause wanton and indiscriminate destruction of wild life. The use of traps and snares is unsporting and could be cruel, and when these devices are equipped with springs, often they cause permanent injury to the animals. The capturing of elephants by digging pits, or the noose or the stockade is attended with considerable cruelty. The training of wild elephants is also accompanied by much suffering to the animal caused by tether wounds and galls on the rear legs or neck.

(vi) The training of animals for performances in circuses also involves a certain amount of cruelty. The actual performance also causes a good deal of suffering to the animals when they are made to perform tricks which are contrary to their natural inclinations or habits.

(vii) Extreme cruelty still obtains in the act of slaughtering animals like cattle, buffaloes, sheep, goats and pigs by the existing methods. Animals are not stunned or otherwise made insensible to pain before being slaughtered. Apart from the cruelties involved in the actual act of slaughter, the pre-slaughter arrangements for housing and feeding of animals are also far from satisfactory. Animals brought for slaughter are overcrowded in small pens. Their ante-mortem inspection is not done properly so that even the animals which are not in a healthy state are passed for slaughter. Animals are brought into the slaughter chamber in groups and an animal is killed within the sight of the others. The sight of carcasses and the smell of blood in the slaughter-hall must cause extreme mental pain to animals awaiting slaughter. Almost half the animals slaughtered in India are killed outside the recognised slaughter-houses where there is no means of controlling the slaughter. Pigs are done to death in the most horrible and cruel manner, particularly in villages. They are killed mostly outside municipal slaughter-houses. The animal is thrown on the ground with its fore legs tied together and a hot iron

is pierced repeatedly into its body. The animal shrieks wildly and takes a long time to die.

(viii) The practice of sacrificing animals in the name of religion obtains in one form or another in almost all parts of India. In some places the methods employed in killing the animals are crude and primitive inflicting undue pain and causing unnecessary cruelty.

(ix) Experiments are performed on certain animals like buffaloes, horses, sheep, goats, rabbits, guinea-pigs, monkeys, mice, dogs, cats, frogs and fowls in the various research laboratories and medical institutions in India. The object of these experiments is to advance scientific knowledge and undertake research to save or prolong human or animal life and alleviate suffering. In certain cases where experiments are performed without the use of anaesthesia, the infliction of a certain amount of cruelty on the animal is inevitable.

(x) The catching and destruction of stray dogs are attended with considerable cruelty. Most methods employed to catch them are cruel. After having been caught they are crowded together under the most unhealthy conditions. Their feeding, watering, cleaning and handling leave much to be desired. The methods most commonly employed for their destruction are poisoning with strychnine or gassing them in a crude and inefficient manner in a lethal chamber. Both these methods are cruel as they cause a slow and agonising death. Clubbing them to death is also resorted to by some municipalities.

(xi) In various out-of-the-way places castration of animals is done by methods which are very crude. For instance, in some cases the testicle is placed between two stones and crushed without the use of any anaesthesia. There is also the "open method" which involves an operation for the removal of the testicles. This, too, is very painful.

(xii) '*Phooka*' or '*doom dev*' represents one of the grossest forms of cruelty that man can inflict on an animal. This malpractice consists in introducing air or any substance into the genital passage of milch animals in order to increase the flow of milk. This increase, however, is only for a short period and not only the yield goes down abnormally soon afterwards but the animal is generally rendered sterile owing to the ballooning of the vagina, etc. A much more painful method often adopted to increase the milk yield consists in thrusting a stick wound up with a bundle of rough straw into the female organ of the cow and twisting it to produce irritation.

(xiii) The disposal of unserviceable and uneconomic animals also generally involves cruelty. According to the estimates of the Cattle Preservation and Development Committee, nearly 10% of the total cattle population of the country are unproductive and useless. There is also a large number of uneconomic animals other than cattle. Their disposal presents a vast problem. The gaushalas and pinjrapoles in the country can hardly cope with the large number of useless animals; the result is that most of our useless animals are neglected and semi-starved. Even in the gaushalas and the pinjrapoles animals often suffer; they do not always get enough to eat or they contract diseases and timely and adequate veterinary aid is generally not available.

(xiv) The cruelties, mentioned above, are only illustrative. There are other forms of cruelties also; for instance, exhibition of fights of

animals such as bulls, rams, etc. and of birds such as cocks. In these fights the animals are badly hurt, sometimes even fatally. Occasionally goats are flayed alive as the skin stripped from a living goat is supposed to be softer and fetches a higher price. Sometimes cases of surreptitious poisoning of animals for obtaining their hides also occur, often in villages.

Cruelties arising out of man's indifference during times of natural calamities, disease and suffering

18. In addition to the cruelties inflicted on animals by man, there are cruelties which arise mainly as a result of man's indifference to the suffering caused to animals by Nature. For instance, animals contract diseases and if man does not do anything to cure them, they suffer and ultimately die. Then, in times of fodder famine animals die of starvation in large numbers unless man makes timely arrangements for the supply of fodder to them.

Importance of animals, particularly livestock

19. Animals, particularly livestock, occupy a key position in the predominantly agricultural economy of our country. They serve man in a variety of ways. They provide him with food in the form of milk, meat and eggs; they give him clothing and manure for maintaining the fertility of the soil; they make available draught power for tillage and locomotion, besides supplying numerous sera, vaccines, therapeutic agents and other biological products for the treatment of human and animal diseases. Even after death, their hide, skin, bones, horns, hoofs, etc. are used to make articles which fulfil many of his daily requirements. The welfare of animals as well as the prevention of any pain, suffering or cruelty to them is, therefore, the concern of man not only from the utilitarian point of view but also on higher principles of compassion, love and humanitarianism.

Magnitude of the problem

20. The problem of preventing cruelty to animals in India is enormous, as her livestock population is nearly one-third of the world population. According to the 1951 livestock census, India had 292.2 million livestock and 73.4 million poultry. These numbers have increased further, as shown by the livestock census recently conducted during the year 1956. According to the provisional results of this census, while the livestock population has increased to 307.1 million, i.e., by 5% over the 1951 census figure, the number of poultry has registered a phenomenal increase of about 33% and stands at 97.4 millions. The following table shows the break-up of the number of livestock and poultry in 1951 and 1956 :

Number of livestock and poultry

		(In millions)	
S. No.	Item	1956 Census*	1951 Census
1.	CATTLE—		
	(a) Males over 3 years—		
	(i) Breeding	0.5	0.7
	(ii) Working	61.7	58.4
	(iii) Others	2.0	2.7
	Total	64.2	61.8

(In millions)

S. No.	Item	1956 Census*	1951 Census
1.	CATTLE— <i>contd.</i>		
	(b) Females over 3 years.		
	(i) Breeding—		
	(a) In milk	20.4	18.9
	(b) Dry and not calved ..	26.5	27.4
	(ii) Working	1.8	2.3
	(iii) Others	1.0	1.2
	Total	49.7	49.8
	(c) Youngstock—	45.0	43.5
	TOTAL CATTLE	158.9	155.1
2.	BUFFALOES—		
	(a) Males over 3 years		
	(i) Breeding	0.3	0.3
	(ii) Working	5.8	6.0
	(iii) Others	0.2	0.5
	Total	6.3	6.8
	(b) Females over 3 years—		
	(i) Breeding—		
	(a) In milk	11.9	10.2
	(b) Dry and not calved ..	9.7	10.8
	(ii) Working	0.4	0.6
	(iii) Others	0.3	0.3
	Total	22.3	21.9
	(c) Youngstock	16.2	14.7
	TOTAL BUFFALOES	44.8	43.4
3.	SHEEP	38.7	38.8
4.	GOATS	56.6	47.1
5.	HORSES AND PONIES	1.5	1.5
6.	OTHER LIVESTOCK	6.6	6.3
7.	TOTAL LIVESTOCK	307.1	292.2
8.	POULTRY	97.4	73.4

It will be seen that among the male cattle as well as the male buffaloes it is the class of working animals which are the largest in number. Working male cattle are 61.7 million and working male buffaloes are 5.8 million according to the 1956 census. Among the female cattle as well as the female buffaloes, it is the class of 'dry and not calved' animals which

*Figures are provisional and subject to revision.

predominate numerically, although the 1956 census puts the number of dry buffaloes a little less than that of buffaloes in milk. There are 26.5 million such cattle and 9.7 million such buffaloes according to the recent census. Thus, the working and the dry animals are more exposed to cruelty than the others. Thoughtless or callous owners or users of working animals can subject them to avoidable pain and suffering and cows and she-buffaloes, on going dry, become uneconomic and find their way to slaughter-houses in the absence of satisfactory arrangements to salvage them.

21. The growing human population of the country needs more food which means more pressure on land. The result is that the marginal lands which hitherto produced fodder for the animals are gradually coming under the plough for growing food crops. With the development of improved techniques of cultivation such as assured irrigation, mechanized cultivation, artificial fertilizers, improved seeds, etc., large stretches of forest areas which have hitherto supplied pasture to the livestock are also being reclaimed for the cultivation of food for human beings, thus the fodder resources available to animals are getting gradually depleted. Animals do not get enough to eat. The gap between their requirements of fodder and its actual availability is widening.

22. According to the estimates framed by the joint Committee of the Nutrition Advisory Committee of the Indian Council of Medical Research and the Animal Nutrition Committee of the Indian Council of Agricultural Research, there is a shortage of dry fodder to the extent of 33% in relation to its total requirements. Green fodder is short of requirements by about 13% when its calculation is based not on actual availability but on the quantities which would become available if forest resources were fully tapped. The actual availability of green fodder is further limited by the fact that it is available only during the monsoon months and much of it is wasted in the absence of country-wide arrangements for its conservation. The shortage is most serious in regard to concentrates such as oil-cakes, bran, oilseeds, maize, barley, gram, etc. and is of the order of 70%. It is the concentrates that supply the requirements of protein which is essential for work, milk yield and growth. It may be mentioned here that the estimates of requirements made above relate only to the existing cattle population which is only a little over 50% of the total livestock population. Thus, the shortages are actually much greater than what are made out above.

Inadequacy of steps already taken to alleviate the suffering of animals

23. We had in the First Plan and also have in the Second Plan various schemes for the development of the livestock wealth of the country. But the other aspect of animal welfare which pertains to the prevention of cruelty on it seems to have received comparatively less attention. From time to time measures have, no doubt, been taken to tackle this problem but they have not gone far enough. Ever since 1857, the Government of India as well as the State Governments have enacted legislation for the prevention of cruelty to animals, but the laws have largely failed to reduce the incidence of cruelty owing mainly to their half-hearted implementation. Humanitarian institutions are also working to alleviate the sufferings of animals. They organize publicity and propaganda to impress upon people the need to be kind to animals. They propagate the principles of non-violence, love, compassion and kindness. They run homes for useless

animals known as gaushalas and pinjrapoles where old and decrepit animals spend their last days in peace. But the efforts of these humanitarian organizations have, so far, borne little fruit, largely because public sympathy and co-operation are lacking. Thus, the problem of preventing cruelty to animals remains mainly unsolved.

Enactments for prevention of cruelty to animals existing before the passing of P.C.A. Act, 1890

24. The first Act to prevent cruelty to animals was enacted by the Governor-General of India in Council in 1857*. It applied only to the station of Howrah. It sought to punish offences like setting on or urging any dog or other animal to attack, worry or put in fear any person, horse or other animal, or, cruelly beating, abusing or torturing any animal, in any public street, road, thoroughfare or place of public resort, by imposing a fine not exceeding Rs. 20. It empowered a police officer to arrest without a warrant any person committing in his view any offence against the Act, if the name and address of such a person was unknown to him. This Act was followed by the enactments made by the Governor-General in Council in 1859†, 1860‡, 1861§, 1867||, 1879¶ and 1889**. In addition to these enactments there were laws in force for the prevention of cruelty to animals in the provinces of Madras, Bombay, Bengal and Assam. These laws contained provisions dealing directly or indirectly with the subject of cruelty to animals. Further, there were Bills under consideration in the local legislatures of Madras, Bombay and the then North-Western Provinces and Oudh. These Bills attempted to tackle the question of preventing cruelty to animals in a more comprehensive manner than the various enactments, referred to above. Thus, there were no less than 22 enactments in force in different parts of India for the prevention or suppression of cruelty to animals at the time when the Prevention of Cruelty to Animals Act of 1890 came into being. Appendix VII traces the evolution of legislation on the subject of cruelty to animals during the period preceding the Central Act of 1890.

25. Besides Madras, Bombay, Bengal, Assam, N.W.P. and Oudh which had local legislatures, there were three more provinces in British India which had no legislatures of their own and consequently depended for their laws on the Council of the Governor-General of India. These were the Punjab, the Central Provinces and Burma (which was then a part of India), besides the minor Administrations of Ajmer, Coorg and British Baluchistan. Apart from certain Imperial Acts relating to cruelty to animals in cantonments or in connection with stage or hackney carriages, or with animal fights, the only enactment of the kind in force in these Provinces and Administrations was Section 34 of the Police Act V of 1861 which runs as follows:—

“Any person who, on any road or in any street or thoroughfare within the limits of any town to which this Section shall be specially extended by the Local Government, commits any of the following

* Act XXI of 1857.

** Act XIII of 1889.

† Act XXIV of 1859.

‡ Act XLV of 1860 and Act XLVIII of 1860.

§ Act V of 1861 and Act XVI of 1861.

|| Act III of 1867.

¶ Act XIV of 1879.

offences* to the obstruction, inconvenience, annoyance, risk, danger or damage of the residents and passengers, shall, on conviction before a Magistrate, be liable to a fine not exceeding fifty rupees, or to imprisonment not exceeding eight days; and it shall be lawful for any police-officer to take into custody, without a warrant, any person who within his view commits any of such offences."

26. A study of the Appendix VII will reveal that the various enactments, in force in different parts of British India, sought to punish the following acts of cruelty to animals :—

1. Wantonly or cruelly beating, abusing or torturing any animal, to the obstruction, inconvenience, annoyance, risk, danger or damage of the residents and passengers.
2. Causing mischief by killing, poisoning, maiming, or rendering useless any animal of the value of ten rupees or upwards or any animal of certain kinds (elephant, camel, horse, mule, buffalo, bull, cow or ox) whatever may be its value, or any other animal of the value of fifty rupees or upwards.
3. Causing obstruction in any street, or causing mischief by any misbehaviour, negligence or ill-usage in the driving, management or care of any animal.
4. Setting on or urging any dog or other animal to attack, worry or put in fear any animal or wantonly frightening a horse.
5. Setting birds or animals to fight, or being present and aiding and abetting such fighting.
6. Over-working of animals by knowingly permitting a stage carriage or hackney carriage to be drawn by a less number of animals, or, a larger number of passengers or a greater weight of luggage to be carried by such carriages than is provided by the licence.
7. Working animals which are unfit for use in consequence of any disease, infirmity, wound or sore.
8. Wilfully and knowingly permitting an animal to go at large in a public street, road or thoroughfare while it is affected with contagious or infectious disease, or wilfully permitting a diseased or disabled animal to die in a public street, road or thoroughfare.

Their limitations

27. It will thus appear that the enactments for the prevention of cruelty to animals existing prior to the passing of the Prevention of Cruelty to Animals Act in 1890 had a limited scope and purpose. They covered only certain specified acts of cruelty and left out the more serious and common ones such as the cruelties inflicted on animals during (a) confinement in private or public places, (b) transport by rail, road, sea or air, (c) slaughter, (d) hunting and shooting, etc. Further, these laws had restricted application. Some of the enactments such as those relating a gambling, namely, Act III of 1867, Bombay Act III of 1866 and Act IV of 1887 and Bengal Act II of 1867 dealt with matters involving cruelty to animals only incidentally, in so far as they came within the scope of the principal subject-matter of the Acts. Further, the provisions of the Indian Penal Code under Sections

*"Any person who wantonly or cruelly beats, abuses or tortures any animal."

428 and 429 were directed rather at protecting the owners of animals being ill-treated from any resulting loss than at protecting the animals from such ill-treatment. The Cantonments Act (XIII of 1889) sought to prevent cruelties to animals only in the cantonments or in the areas in their vicinity. Section 34 of the Police Act of 1861 which operated in several provinces having no local legislatures and other minor administrations, also suffered from limitations, *e.g.*, it could only be extended to a town, and even within the limits of a town it did not cover any act of cruelty however barbarous, if it was not committed on a road or in a street. Further, the act to be punishable had to cause at least inconvenience or annoyance to residents and passers-by.

Prevention of Cruelty to Animals Act, 1890

28. Thus, there was a great need for a general legislation for the prevention of cruelty to animals which could cover a wider ground with respect to the different forms of cruelties commonly practised on animals and also which could be uniformly applied all over the country. The object of enacting the Prevention of Cruelty to Animals Act of 1890 was to provide an easily enforceable law which might be applied by any Local Government to any part of the territories under its administration, either in addition to, or to the exclusion of any other enactment in force in such part for the prevention of cruelty to animals. The Prevention of Cruelty to Animals Act of 1890 was based mainly on the Bengal Cruelty to Animals Act, 1869 (I of 1869) and the Madras City Police Act, 1888 (Madras Act III of 1888). This Act was amended in 1917, 1938 and 1950*. The Act, as modified upto the 1st April, 1953, may be seen in Appendix VIII. The salient features of this Act are briefly mentioned below:

(i) It extends to the whole of India except Part B States and empowers the State Government to extend the whole or any part of the Act to any local area whenever it thinks fit.

(ii) With the extension of the Act to any local area, any other enactment in force in that local area for the prevention of cruelty to animals shall cease to have effect, unless the State Government otherwise directs.

(iii) It defines 'animal' as any domestic or captured animal.

(iv) It seeks to punish the following acts of cruelty to animals :

- (a) Over-driving, beating or otherwise treating any animal so as to subject it to unnecessary pain or suffering.
- (b) Binding, keeping, carrying or consigning for carriage any animal in a manner involving unnecessary pain or suffering.
- (c) Offering for sale or without reasonable cause having in possession any live animal which is suffering pain owing to mutilation, starvation, thirst, over-crowding or other ill-treatment.
- (d) Offering for sale any dead animal or part of a dead animal killed in an unnecessarily cruel manner.

***Amending Acts:**

1. The Prevention of Cruelty to Animals (Amendment) Act, 1917 (XIV of 1917).
2. The Prevention of Cruelty to Animals (Amendment) Act, 1938 (XXV of 1938).
3. The Adaptation of Laws Order, 1950.

- (e) Abandoning any animal in circumstances which render it likely that it will suffer pain by reason of starvation or thirst.
- (f) Over-loading of animals.
- (g) Practising *Phooka** upon any cow or other milch animal.
- (h) Killing animals with unnecessary cruelty.
- (i) Employing animals unfit for labour.
- (j) Baiting or inciting animals to fight.
- (k) Permitting diseased animals to go at large or to die in public places.
- (v) It empowers the State Government to appoint infirmaries for the treatment and care of animals prosecuted under the Act.
- (vi) The Prosecuting Magistrate is authorised to direct the animal concerned to be treated and cared for in an infirmary till it is fit to perform its usual work, or otherwise fit for discharge, or to be sent to a pinjrapole or to be destroyed if it is certified by a Veterinary Officer as incurable.
- (vii) It gives special powers to a police officer not below the rank of sub-inspector to enter and search any place where he has reason to believe that animals are being or are about to be or have been killed in an unnecessarily cruel manner or '*phooka*' has just been or is being performed on any animal.
- (viii) It empowers a Magistrate of the first or second class or other officers specified in the Act to enter and search any place where he has reason to believe that an offence against the Act is being or is about to be or has been committed.
- (ix) It does not render it an offence to kill any animal in a manner required by the religion or religious rites and usages of any race, sect, tribe or class.
- (x) It gives powers to any police officer above the rank of a constable, or any person authorised by the State Government in this behalf, to seize an animal in respect of which an offence against the Act has been committed or is being committed, and produce it before a Magistrate for examination.
- (xi) Section 15 empowers the State Government to make rules suiting local conditions to carry out the purposes of the Act.

Its application and enforcement

29. As has been pointed out above, the Prevention of Cruelty to Animals Act of 1890 was intended to be a permissive legislation leaving the State Government (to whose territories this Act extends) free to adopt it or not. The present position with regard to its coverage is that it is in force in all Part 'A' States except in West Bengal and in all Part 'C' States. In West Bengal, the Bengal Cruelty to Animals Act, 1920 is in operation and

**Phooka* or *doom dev*, as defined in the Act, includes any process of introducing air or any substance into the female organ of a milch animal with the object of drawing off from the animal any secretion of milk.

is similar to the Act of 1890 in all respects except that it provides for the establishment of weigh-bridges for the detection of cases of overloading of animals. The States which have adopted the Central Act for implementation have invariably made detailed rules, as required under Section 15 thereof, to suit local conditions:—

- (a) prescribing the maximum weight of loads to be carried or drawn by an animal;
- (b) prescribing conditions to prevent the overcrowding of animals;
- (c) prescribing the period during which, and the hours between which, buffaloes shall not be used for draught purposes;
- (d) prescribing the purpose to which fines realised under this Act may be applied, including such purposes as the maintenance of infirmaries, pinjrapoles and veterinary hospitals;
- (e) prohibiting the use of any bit or harness involving cruelty;
- (f) requiring persons carrying on the business of a farrier to be licensed and registered;
- (g) requiring persons owning, or incharge of, premises in which animals are kept or milked to register such premises, to comply with prescribed conditions as to boundary walls or surroundings of such premises, to permit their inspection for the purpose of ascertaining whether any offence against Section 4 is being or has been committed therein, and to expose in such premises copies of Section 4 of this Act in a language or languages commonly understood in the locality; and
- (h) prescribing the manner in which cattle may be impounded in any place appointed for the purpose, so as to secure the provision of adequate space, food and water.

30. The Act (as modified upto the 1st April, 1953) was not meant to be extended to Part 'B' States. However, all Part 'B' States except Rajasthan have some sort of legislation for the prevention of cruelty to animals. The States like Travancore-Cochin, Madhya Bharat, Hyderabad, Mysore and Jammu and Kashmir have passed Acts for the prevention of cruelty to animals on the lines of the Central Act with slight modifications warranted by local conditions. H. H. the Maharaja of Travancore enacted an Act for the Prevention of Cruelty to Animals in 1904. Cochin State followed suit in 1920. Mysore and Madhya Bharat States passed similar legislation in 1895 and 1949 respectively. There is an Act on the subject in Hyderabad passed in 1313F (1906). The Central Act, as operating in the State of Bombay, was extended to Saurashtra under an Ordinance in 1948. In Rajasthan there is, so far, no general legislation for the prevention of cruelty to animals. So far as P.E.P.S.U. is concerned, Section 33 of the Patiala Police Act, 1985 (B.K.) (1928) deals with the prevention of cruelty to animals. There is also an Act on this subject in Jammu and Kashmir which was passed in 1988 Samvat (1931). A list of the States and the various laws and rules for the prevention of cruelty to animals in force is given in Appendix IX.

31. At present, the police constitute the main agency to implement the Central Prevention of Cruelty to Animals Act. Where Societies for the Prevention of Cruelty to Animals exist, their inspectors who have been

given police powers in certain States, also prosecute offences under the Act and report them to Magistrates. But the evidence collected by the Committee leads it to the conclusion that the actual implementation of the Act is far from satisfactory. The police officers examined by the Committee have generally maintained that the police, burdened as they are with their multifarious duties as guardians of law and order, do not find enough time to devote to the detection of offences under the Prevention of Cruelty to Animals Act, with the result that many offenders go scot-free. Besides, there is a general lack of appreciation by the police of the pain and suffering caused to animals as a result of the cruel and callous treatment meted out to them day in and day out on roads, in streets, or in public thoroughfares. An over-loaded cart, in most cases, will hardly move the police to come to the rescue of the poor creatures pulling the cart. The working of the S.P.C.As. in the country in relation to the enforcement of the law is dealt with later in this chapter. The Committee's recommendations in regard to the improvements required to be made in the existing Act are set forth in the form of a Bill appended to the Report.

Its deficiencies

32. The witnesses whom the Committee examined pointed out the following deficiencies in the Prevention of Cruelty to Animals Act of 1890:—

(i) The operation of the Act is at present confined only to big towns and there, too, to municipal limits only. It leaves out completely the villages* of India which account for the bulk of the animal population in the country and where all forms of cruelties are perpetrated on cattle and other animals due chiefly to ignorance and poverty.

(ii) The definition of the term "animal" as meaning any domestic or captured animal is narrow and needs to be widened.

(iii) The offences under the different Sections of the Act, except under Section 4, are not cognizable, thereby hampering the proper enforcement of its penal provisions.

(iv) The penalties provided for certain offences are inadequate and consequently fail to produce deterrent effect upon offenders.

(v) The Act does not provide any protection to animals:

- (a) from pain, fear and suffering in slaughter-houses;
- (b) from the horror and torture of animal sacrifices in temples, etc.;
- (c) from painful experiments on animals;
- (d) from the suffering involved in hunting, shooting, etc., in the training of performing animals, in the confinement of wild animals and birds and the cruelties involved in the transport of animals inside the country and their export.

*The considerations that weighed at the time of passing the Act in not immediately extending it to rural areas were: (1) in the outlying parts of the country there was practically no reliable agency by which the law could be enforced without causing unnecessary harassment to the people, (2) the distance between some villages and the competent courts which could try the offences under the Act, was in some cases prohibitive and (3) the general ignorance and poverty of villagers created further difficulties.

(vi) There no provision in the Act to punish:

- (a) cases like the slow poisoning of cattle for hides, skins, etc;
- (b) the indiscriminate branding of animals which is painful and is practised on an extensive scale in certain parts of India; and
- (c) the de-horning of cattle.

State laws

33. As stated above, the Prevention of Cruelty to Animals Act does not cover all forms of cruelties commonly practised on animals. Consequently, some States have made their own laws and rules to regulate certain operations and prevailing practices with the object of eliminating, to the extent possible, the element of cruelty involved in them. For example, almost all States have Game Laws for the protection of wild life which regulate hunting, shooting and fishing. In a large number of States there are laws to control the slaughter of young, useful and milch animals. A few States have also enacted Acts for the prohibition of sacrifices of animals in the name of religion. The salient features of these laws are summarized below.

Game laws

34. Almost every State in the country has an adequate compilation of game laws and rules to regulate sport in the reserved and protected forests. Such laws and rules generally provide for:

- (i) close seasons (in order to protect the female of the species or immature males and to avoid disturbing them during the mating season, etc.);
- (ii) prohibition of shooting animals at such points as saltlicks, water holes which animals are obliged to visit;
- (iii) prohibition of shooting from fast-moving vehicles, or with the aid of bright lights;
- (iv) prohibition of shooting in the hours of night and darkness;
- (v) prohibition of shooting beyond specified numbers in a season;
- (vi) setting up a block in which shooting is allowed during specified periods alternating with periods of rest, etc.;
- (vii) prohibition of poisoning any water or using dynamite or other explosive substances for fishing in any water; and
- (viii) prohibition of the setting of cruives or fixed engines or snares for the capture or destruction of fish.

35. The game laws also provide that every sportsman must have a licence and must report on his shoot at the end of the period of the licence. Penalties, often quite heavy, are prescribed for the contravention of these laws and rules.

36. In some States such as U.P., there are restrictions on the shooting of carnivora; for example, no shikari can shoot more than 4 tigers a year.

In almost all States, even in the case of carnivora, females of lions, panthers, tigers, etc. accompanied by their cubs too small to look after themselves are not to be hunted under the laws. In several States such as Madhya Pradesh, Madhya Bharat and the Punjab rules exist to regulate the shooting of wild birds and animals even outside Reserved Forests. Much of the shooting outside Reserved Forests takes place for food and for crop protection.

37. The evidence brought before the Committee shows that the laws and rules are not being properly observed by sportsmen resulting in a good deal of avoidable cruelty. These laws are administered by Wild Life Preservation Officers as in Bombay and Rajasthan and by District Forest Officers or District Collectors in other States. Certain States such as Bombay have set up Wild Life Advisory Board to advise the State Government in the selection of areas to be declared as game sanctuaries and their administration, formulation of policies in the granting of licences and permits under the Act and in any other matters connected with the preservation and protection of wild animals and birds. Game licences that are issued at present do not specify the number, species, sex, height, age, etc. of the animals to be shot during the period of the licence. Sport has become a cheap pastime and inexpert shooting resulting in only wounding the animal but not killing it often takes place.

Laws for the control of slaughter of animals

38. The Cattle Preservation and Development Committee appointed by the Government of India in 1947 went into the question of slaughter of cattle in all its aspects and recommended a comprehensive plan of action for the preservation and development of the cattle wealth of the country. The Committee recommended total prohibition of slaughter of all useful cattle. It also recommended the prohibition of unlicensed or unauthorised slaughter of cattle. These recommendations were accepted by the Government of India. The enactment of necessary legislation on the subject, however, falls within the purview of the State Governments. The Government of India, therefore, drafted a model Bill and suggested to the State Governments to enact legislation on the lines of that Bill. Some States passed legislation on the lines of the model Bill; some considered such legislation unnecessary; while still others enacted legislation imposing a total ban on the slaughter of *all cattle*.

39. A majority of the States in India, by now, passed laws controlling the slaughter of animals so as to check the depletion of productive stock and prevent avoidable cruelties involved therein. These States are Assam, Bombay, Andhra, Bihar, Madhya Pradesh, Madras, West Bengal, Hyderabad, U.P., Madhya Bharat, Mysore, PEPSU, Punjab, Rajasthan, Saurashtra, Travancore-Cochin, Ajmer, Bhopal, Manipur and Tripura. Of these, some States, namely, Madhya Bharat, U.P., Bihar, Punjab, PEPSU, Madhya Pradesh, Rajasthan, Mysore, Bhopal, Ajmer, Manipur and Tripura have imposed total ban on the slaughter of cows and on their progeny. The laws for the regulation or control of slaughter of animals (bulls, bullocks, cows, calves, male and female buffaloes and buffalo calves) generally permit the slaughter of only such animals as are over 14 years of age and unfit for work or breeding or of such animals as have become permanently incapacitated for work or breeding due to age, injury, deformity or any incurable disease. The animals declared fit for slaughter are required

to be slaughtered only in prescribed places. The presidents of municipalities or veterinary surgeons have powers under these laws to enter and inspect any premises within their jurisdiction where they have reason to believe that an offence against the Act has been or is likely to be committed. Breaches of the Act are punishable with heavy fines, imprisonment or both.

Laws prohibiting animal sacrifices in the name of religion

40. It has been mentioned earlier in this chapter that the methods employed at present for slaughtering animals before deities are usually crude and primitive and involve considerable cruelty. Some of the States, *viz.* Madras, Mysore and Travancore-Cochin have enacted legislation prohibiting the perpetration of such cruelties in the name of religion. The Madras Animals and Birds Sacrifices Prohibition Act, 1950 was extended to Andhra on the formation of the latter. Mysore State passed legislation in the year 1948, followed by Madras in 1950 and Travancore-Cochin in 1953. The provisions of the Acts passed by these States are almost the same in each State. The Acts prohibit the sacrifice of any animal or bird inside any temple or its precincts. Heavy penalties are laid down for any contravention of the law. But it was pointed out to the Committee that these laws had not reduced materially the number of animal sacrifices taking place in these States excepting Travancore-Cochin, for the reason that they seek to prohibit animal sacrifices only within the precincts of temples with the result that people circumvent the law by sacrificing animals outside the temples. In Travancore-Cochin State the law has been effectively implemented resulting in almost complete stoppage of animal sacrifices. There is overwhelming evidence in support of a complete ban on the sacrifice of animals to propitiate deities.

Municipal bye-laws

41. Municipalities in India administer certain provisions of the laws for the prevention of cruelty to animals passed by State Governments. For this purpose they frame bye-laws under the powers conferred on them by the State Acts. The municipal bye-laws deal mostly with the regulation of slaughter of animals, the over-loading of bullock-carts and the plying of hackney or stage carriages. The bye-laws dealing with slaughter provide for the licensing of all butchers who slaughter animals in municipal slaughter-houses, the ante-mortem inspection of animals, the use of such instruments, appliances, etc. and the adoption of such methods as are necessary to ensure the infliction of as little pain and suffering as possible in the slaughter of animals, the animals to be slaughtered or their carcasses to be dressed in such a manner that no other animal sees it, etc. The bye-laws relating to over-loading prescribe maximum weights of loads to be drawn by bullocks or buffaloes drawing local iron-tyred carts or carts fitted with pneumatic equipment. With regard to the hackney or stage carriages the bye-laws lay down the number of passengers or the weight of luggage to be drawn by carriages. The municipal bye-laws as well as their working are dealt with in detail in the relevant chapters.

Present working of S.P.C.As. in India

42. At some places the Committee examined the working of the local Societies for the Prevention of Cruelty to Animals and also recorded the views of their Members regarding their problems and how they solve them. Although some of the S.P.C.As. in the country are doing good work, the

evidence indicates that by and large the present working of the S.P.C.As. in the country is far from satisfactory. They have not been able to reduce the incidence of cruelty to animals nor have they succeeded in improving the lot of working animals. They have failed to win public sympathy and confidence or arouse mass consciousness in regard to the need for kindness to animals.

43. Broadly speaking, the activities of S.P.C.As. fall into the following three categories:

- (i) administration of laws and rules for the prevention of cruelty to animals;
- (ii) maintenance of hospitals for the treatment of sick and wounded animals; and
- (iii) other activities conducive to the welfare of animals.

The working of S.P.C.As. under each of these heads is briefly examined below.

Administration of laws for prevention of cruelty to animals

44. It has been pointed out earlier in this Chapter that the police constitute the main agency to implement the laws for the prevention of cruelty to animals in India. In some areas S.P.C.As. are the only agency to administer such laws and for this purpose they are armed with necessary police powers. The Societies operate through inspectors or agents whose duty it is to detect cases of cruelty to animals and report them to the nearest court for trial. Certain societies appoint special duty agents for the detection and prevention of special types of cruelties such as 'phooka', over-crowding of animals, excessive beating, etc. The evidence received by the Committee shows that S.P.C.As. in India have confined their activities largely to the prosecution of cases of cruelty under the various anti-cruelty laws and that they have paid comparatively much less attention to educative propaganda among the public and other constructive activities which can promote the welfare of animals. The Committee appointed by the Government of West Bengal in 1950 to enquire into the affairs of the Calcutta Society for the Prevention of Cruelty to Animals arrived at a similar conclusion as a result of their investigations into the working of the Society.

Maintenance of hospital for animals

45. Most S.P.C.As. in India maintain hospitals for the treatment of sick and wounded animals. The Committee visited S.P.C.A. hospitals at some places and saw that cattle, buffaloes, donkeys and other working animals were kept there for treatment. There were separate wards for different animals in some of the hospitals. Most of the animals treated in these hospitals belong to persons prosecuted by S.P.C.A. inspectors on charges of cruelty (to animals) under the laws for the prevention of cruelty to animals. There are veterinary surgeons attached to S.P.C.A. hospitals for the proper treatment and care of animals, but in most cases they (veterinary surgeons) are part-time and consequently the aid rendered to the animals is far from being adequate. The owners of animals who are prosecuted have to bear the cost of the feeding as well as treatment of their animals detained in S.P.C.A. hospitals. In most cases owners are found to be extremely poor and consequently not in a position to pay for the feeding and treatment of their animals and look to the societies for help which is almost always not forthcoming.

Other activities conducive to animal welfare

46. Besides the administration of laws for the prevention of cruelty to animals and maintenance of hospitals for animals subjected to cruel treatment, S.P.C.As. sometimes try to undertake other activities designed to promote public interest in animal welfare work in the shape of publicity and propaganda among the masses on the need to be kind to animals and give them humane treatment, but, as has been mentioned above, such constructive activities are absolutely inadequate.

Income and expenditure of S.P.C.As.

47. A study of the statistics of annual income derived from various sources during the last 5 years in respect of a few S.P.C.As. in India, as given in Appendix X, reveals that a very large part of their income comes from fines collected through courts from cases prosecuted by them (S.P.C.As.). A certain percentage, varying from society to society, of court fines collected from S.P.C.A. cases is made over to them as annual grant from Government. The Government grant is given mainly to enable the societies to meet the expenses of administration of the laws for prevention of cruelty to animals. The linking of annual Government grant (to S.P.C.As.) to the amount of court fines acts as an incentive to the S.P.C.A. inspectors to prosecute as many cases of cruelty to animals as possible to maximise the income from this source. The prosecution undertaken by the S.P.C.As. often result in unnecessary harassment of poor people for whom their animals are the only means of livelihood and who maltreat their animals not because of indifference or callousness towards them but because through ignorance or poverty they are not conscious of the harm they do to their animals.

48. As it is, the S.P.C.As. have come to be dependent on the continuance of cruelties for their existence. The income derived from other sources, viz., public donations, special receipts, membership fee etc., is comparatively low. For instance, the Annual Report of the Delhi S.P.C.A. for the year ending the 31st March, 1955 shows that while the court fines realised during that year were of the order of Rs. 42,605, the membership fee was only Rs. 438. This means that the number of members of the Delhi S.P.C.A. at the end of that year was at a very small figure which compared very unfavourably with the population of Delhi. This is equally true of the S.P.C.As. in other places, leading one to the conclusion that these societies have become unpopular institutions almost everywhere in India. The insignificant contribution of voluntary public donations to the total resources of S.P.C.As. also confirms this belief. Almost all S.P.C.As. have complained of the lack of funds as the greatest single impediment in the way of their effective working.

49. Appendix XI shows the annual expenditure of a few S.P.C.As. in India during the last five years. It will be observed that by far the major portion of the total expenditure of the societies is accounted for by the salary and wages of staff and other expenses on establishment. The expenditure on publicity and propaganda, on the other hand, is strikingly low in relation to the total expenditure.

50. The position stated above shows the need for a thorough reorientation of the constitution of the S P C.A as well as their present system of working.

Legislation in foreign countries.

51. In response to the Committee request some foreign countries have supplied it with literature including existing legislative enactments on the prevention of cruelty to animals and other allied matters. These countries are the U.S.A., Canada, U.K., France, Germany, Netherlands, Norway, Sweden, Belgium, Austria, Australia, New Zealand, British West Indies, Philippines, South Rhodesia, Brazil, Egypt, Iraq, Syria, Lybia, Burma, Ceylon, Pakistan, Nepal and Sikkim. Of these, the U.K. is the only country which has enacted laws on almost all aspects of the subject of cruelty to animals. References to the legislations existing in these countries and the recommendations based on their study are incorporated in the relevant Chapters.



CHAPTER III

EXPERIMENTATION ON ANIMALS

Purpose of animal experimentation.

52. To advance knowledge in the sciences of physiology, pharmacology and pathology, to facilitate the diagnosis of certain diseases, to produce and standardise sera and vaccines, to test and standardise certain drugs of animal and vegetable origin, biological methods (including animal experimentation) have been found necessary all the world over. These methods have been of great use in the prevention, early diagnosis and cure of diseases and the alleviation of the sufferings of men and animals.

53. In reply to the questionnaire information on animal experimentation has been received from 27 medical colleges, 8 veterinary colleges, 10 serum and vaccine manufacturing institutions, 15 medical research institutions and 12 public health laboratories situated in different parts of India. Besides, the Committee visited, during its tours, some of the leading medical colleges and medical research institutes of the country in Calcutta, Bombay, Poona, Madras, Mysore, Hyderabad, Lucknow and Patna and also examined a number of scientists at the different places visited by the members.

54. The animals commonly used for experimentation in India are frogs, mice, rats, guinea-pigs, rabbits, cats, dogs, sheep, goats, cattle, calves, buffaloes, horses and monkeys. Pigeons, fowls, chickens and chick embryos (fertilized eggs) are also used for this purpose in some institutions. The main purposes for which experiments are performed on these animals are detailed below :—

- (1) Diagnosis of human and animal diseases.
- (2) Research in the fields of physiology; pharmacology, bacteriology, pathology, serology, bio-chemistry, chemo-therapy, virus diseases, nutrition, entomology, surgery, veterinary science, etc.
- (3) Teaching and demonstration. Such experiments are undertaken mainly in medical and veterinary colleges and in biological classes of science faculties of universities.
- (4) Preparation of sera and vaccines. Different types of sera and vaccines are produced from animals like sheep, goats, cattle, buffaloes, calves and horses. The sera and vaccines, when produced, are tested for their safety, absence of toxicity and potency generally on smaller animals like rabbits, guinea-pigs, mice, etc.
- (5) Standardization of products other than sera, vaccines, such as the pharmaceuticals is done by testing these products on animals.
- (6) Medico-legal purposes. The experiments for medico-legal purposes are not many in number and are undertaken only in some of the institutions.

55. A statement showing the various scientific institutions engaged on animal experimentation in India, nature of research work done and number and kinds of animals used for experiment in them, is appended (Appendix

XII). It will be seen that in the majority of the medical research institutions experiments on animals are performed for almost all the purposes mentioned above. Some of them, however, specialize only in particular branches of medical and veterinary science.

Utility and ethics of animal experimentation

56. Scientists who appeared before the Committee supported animal experimentation on both utilitarian as well as humanitarian grounds. Its usefulness to the welfare of human beings as well as animals can hardly be disputed. On humanitarian considerations also animal experimentation can be supported as the individual who performs these experiments usually does not do so for his own benefit but for the good of the entire mankind as well as of the animal kingdom. By experimenting on a few animals, he hopes to save thousands of human beings as well as animals from disease, suffering and death.

57. But according to persons who are opposed to experiments on animals, animal experimentation has no justification whatsoever. They argue that the end, even if it is good, can hardly be justified if the means adopted are bad. According to some, it is immoral to experiment on animals involving undue pain and suffering even if the object of the experiment is to secure some benefit for mankind. Others were of the view that there are alternatives to experiments on animals which rule out the necessity for any such experiment altogether.

Use of the term 'Vivisection'

58. There is a good deal of confusion with regard to the use of the term 'vivisection' as applied to experimentation on live animals. The literal meaning of the word vivisection is 'cutting open a live animal', not necessarily for research or experimentation. The word seems, however, to have been used in this sense in the literature received from various humanitarian organizations in India and abroad. The scientists whom the Committee examined did not favour the use of this word as it does not connote the proper implication of the term 'Animal experimentation'. 'Cutting open a live animal' is only one of the various procedures employed while performing an experiment on an animal. The word 'vivisection' does not occur in any of the legal enactments the Committee has received from foreign countries for the regulation of the use of animals for experimentation. In its place the term 'Animal experimentation' is used. The law in Denmark uses the expression 'use of animals in biological research and combat of disease'. The Committee also feels that 'experimentation on animals' or 'animal experimentation' is a more comprehensive and appropriate term than 'vivisection' as applied to the various methods employed on live animals for scientific and medical research or for the production of sera, vaccines, drugs etc.

Cruelties involved

59. In the course of its enquiry the Committee examined a fairly large number of scientists, most of whom had actual experience of handling experimental animals in laboratories. The Committee also obtained the views of a number of humanitarian workers and distinguished citizens, besides a few practitioners of Ayurveda and Homœopathy. The Committee, therefore, feels that it is in possession of a fair cross-section of the expert opinion as well as the feelings of the layman on the question of animal experimentation. And this cross-section reveals a wide diversity of opinion on the

subject. The scientists consider that animal experimentation is absolutely necessary for the advancement of science in the interests of mankind while the majority of the humanitarians and others object to any kind of experimentation on live animals; there are yet some others who object only to experiments that might cause pain to the animal.

60. The leading medical scientists including Principals of Medical Colleges, Directors of research institutes and veterinarians have maintained that they exercise all possible care to ensure that the experimental animal is not subjected to any unnecessary pain and suffering during experiment. The Scientists particularly emphasised that no experimenter will ever wish to inflict suffering on an animal consciously. He is primarily interested in achieving the maximum results out of the experiment that he has planned to perform on an animal, and to that end he would like to ensure the best possible conditions for it. The majority of experiments carried out in this country do not need anaesthesia as they consist of injections or inoculations which do not cause any appreciable suffering. All cutting operations are invariably performed under the influence of anaesthesia. In a small percentage of cases where their administration is likely to interfere with the results of the experiment anaesthetics are not used. When for any experimental cause beyond the control of the experimenter, an animal is found suffering from pain, it is put out of its existence immediately through painless methods. According to the evidence received from the scientific institutions, about 90% of the animals anaesthetized for experimentation are killed before recovering consciousness and those that are allowed to recover consciousness are looked after carefully.

61. The majority of the representatives of humanitarian organizations and some of the eminent citizens whom the Committee examined have, on the other hand, strongly pleaded for a total abolition of animal experimentation in India as the only way to save animals from the cruelties to which, according to them, they are subjected during experimentation. They have even suggested the imposition of a legal ban on animal experimentation. According to them, man has no right to inflict suffering and death on other forms of life as all life is basically one and all living beings are endowed with sensations of pain and pleasure. It has been suggested by some eminent citizens that if man considers it absolutely necessary to perform experiments on live animals for his own well-being, let him do these on his own body. They urged exploration of other forms of cure which would not involve any suffering to animals.

62. There is yet another section of persons who have deprecated experiments of a painful nature but have observed that there is no ground for interference with experiments which cause no pain or suffering to the animal, as in such experiments no cruelty is involved. According to them, animal experimentation may be resorted to if absolutely necessary and provided that it is done humanely and controlled fully.

63. The Committee visited a number of medical research institutes in the course of its enquiry. The Committee's impressions regarding the treatment of animals in some of them are summarized below :—

King Institute of Preventive Medicine, Guindy (Madras)

64. The King Institute, Guindy (Madras) is a public health research and diagnostic institute as well as a laboratory for the manufacture, control

and standardization of various biological products. The animals that are used in the Institute for experimental work are horses, cow and buffalo calves, guinea-pigs, rabbits, mice, pigeons, monkeys, rats etc. The experiments performed on these animals are mainly in the nature of injections and inoculations and collection of blood from animals for the manufacture of sera, vaccines etc. The Director told the Committee that the Institute was not yet producing enough quantities of sera and vaccines to meet fully the requirements of the country. According to him, to prohibit the use of animals for experimentation for preparing sera, vaccines and other biological products would make India entirely dependent on foreign countries for such requirements. Horses are used in the Institute for preparing anti-tetanic and anti-gas gangrene sera. Monkeys are used for testing the potency of small-pox vaccine and also for testing some of the pharmaceuticals manufactured in the Institute. He added that almost all the experiments performed on animals in the Institute involved a certain amount of pain or suffering to the animals but that was unavoidable. He demonstrated the preparation of small-pox vaccine from calves in the Vaccine Lymph Section of the Institute. Only female calves are used for this purpose. The calf is laid on the table with its abdomen facing the operator. The abdomen is thoroughly scrubbed with soap and hot water preparatory to the shaving of the area. After shaving, the portion is washed again; then a number of long scarifications, varying from 15 to 20 are made by means of a lancet. The animals, on the whole, appeared to be quite even when the scarifications were being made. The Committee was told that there was not much pain involved in the whole process and therefore the use of anæsthesia was not necessary. The quantity of vaccine lymph prepared from one calf is enough for about 6,000 human beings.

Veterinary College, Madras

65. The Committee was shown the preparation of anti-tetanic serum from horses in the Madras Veterinary College. Most of the horses used for this purpose are cavalry and race horses which have outlived their usefulness. The process of preparing anti-tetanic serum is that first, tetanus toxin is injected into the horse. This injection results in the formation of an abscess, which is allowed to develop for about 15 days. Thereafter, blood is taken out and tested, its potency is assessed and serum prepared. Again, after about 2 months the same process is repeated on the same horse and this continues for about 15 years. The horses maintained for this purpose are cared for properly. In the Department of Anatomy, the Committee was shown how different parts of animals are preserved for a long time and used for teaching purposes. Useful animals are not generally used for this purpose. Male buffaloe calves, unwanted by their owners, are bled to death in about 10 minutes. The animal does not suffer much pain during the process of bleeding. After bleeding a preservative solution is injected and the various parts of the body are removed and maintained for study. About 50 animals are used every year in this manner.

Bengal Immunity Co., Ltd., Calcutta

66. In the Bengal Immunity Co., Ltd., Calcutta, horses after purchase are kept in isolation and under observation for about 15 days in order to be sure that they are healthy and free from any disease. Thereafter the Serologist injects them with short-course toxoid and then with minute quantities of tetanus or other toxin and goes on gradually increasing the

dose till the blood of horse has developed adequate concentration of anti-toxin. Ordinarily it takes about 5 to 8 months before a horse is ready and fit for bleeding for manufacture of anti-toxin. About 4 to 6 litres of blood are taken out each time a horse is bled. Bleeding is done usually at intervals of one month so long as the horse maintains good health and antibodies in sufficient concentration. Blood is drawn by making a small puncture on the skin through which the needles is inserted into the external jugular vein. When blood is drawn out from the horse, glucose and protein hydrolysate are injected to keep the animal fit. This process of bleeding is repeated on the horse usually about 10 times in a year and continues for about 5 years. If it becomes weak, it is allowed rest for a sufficient period of time and is given extra nutrition till it recovers normal health when it is used again for production of anti-toxin. The horse sometimes develops slight temperature in the beginning of the process of immunisation as a result of the injections. It was stated that the animals did not suffer any pain if they were handled properly. The horse lives for about 10 years unless its life is cut short by some disease. About 500 horses are normally maintained in the Institute and about 100, (particularly the old ones), die every year. The Animal House of the Institute contained about 4,000 mice, 400 rabbits and 700 to 800 guinea-pigs. These animals are used mainly for assaying vaccines, sera and other drugs for the purpose of standardizing them. The Scientists at this laboratory informed the Committee that efforts were being made to evolve and improve chemical tests for standardisation and such tests were being carried out at different stages during the process of manufacture of Gas Gangrene and Diphtheria anti-toxins. But for issue of finished sera to the market animal tests are enjoined by law-International and Indian. It is also reported that in France the Ramon's flocculation test for Diphtheria anti-toxin is official.

Calcutta School of Tropical Medicine, Calcutta

67. In the School of Tropical Medicine, surgical operations are performed on dogs, monkeys and rats to study the effect on enlargement of spleen. The animals are given chloroform, and under anæsthesia they are opened up for such study. Experiments relating to filaria, amœbiasis and tropical eosinophilia are performed on laboratory animals. Cats are largely used for pharmacological studies; they are put under anæsthesia and are injected with drugs for trial like digitalis, Rauwolfia serpentina etc., to watch the effect on blood pressure and the physiological functions of some of the organs. The experiments last for a few hours when the animals die while under anæsthesia.

68. Rabbits are used for production of several varieties of anti-sera. They are injected with antigens and their blood is utilised after full immunisation. Guinea-pigs and white mice are used for testing the virulence of bacteria and viruses. Injection of such pathogenic micro-organism causes rapid death of these animals. There is special colony of laboratory-bred mice for virus work.

All-India Institute of Hygiene and Public Health, Calcutta

69. The Institute conducts only experiments on various animals in the laboratories of the nutrition, Microbiology and Industrial Hygiene. In the Nutrition laboratory the animals are put on deficient diets for a period of 3 or 4 weeks. At the end of this period they are killed under anæsthesia and the effect of diets observed. Sometimes blood has to be removed from the

organs of animals and for that purpose anaesthetics are used. Most of nutritional experiments are carried out on rats. Pigeons are used for Vitamin 'B' tests, while rabbits respond better to Vitamin 'A' tests and guinea-pigs are used for Vitamin 'C' tests. In the Microbiology laboratory white mice, guinea-pigs, rabbits and occasionally hamsters and monkeys are used for studying the effect of microbes or for raising the titre of antebodies in high titre serum. These experiments are performed under the influence of anaesthesia. Infected animals are killed at the end of the experimental period by anaesthesia, so that they do not suffer pain during death. To test the effects of Industrial gases on human system, monkeys are mostly used. For this purpose, monkeys are made to live in the factory area for a period of 2 years so that they inhale the gases and dust found in the factory. The effect which the industrial gases and dust produce on the system of a human being is produced much quicker on the system of a monkey. During this period the chests of monkeys are X-rayed periodically and at the end of the period the monkeys are killed by anaesthesia and their lungs removed for studying the effects of the gases. Formerly, guinea-pigs were used for this purpose but the results obtained were not found satisfactory.

Indian Institute for Bio-chemistry and Experimental Medicine, Calcutta

70. The Institute is said to have done a good deal of pioneering work on malarial immunology. More than 2,000 monkeys have been used for this purpose in the Institute since 1936 for research work on malaria. The monkey is infected with the malaria parasite *Plasmodium knowlesi*; on the 5th day the infection appears and on the 10th-12th day the animal dies. The infection is so virulent that 60 per cent of the red cells in the blood gets infected. When the animal is at the height of infection, general anaesthetics are used and about 50 cc. of blood is taken out of each monkey for extraction of malaria parasites from blood.

71. All the experiments performed on live animals such as pharmacological tests on cat, pregnancy tests on rabbit, bladder stone formation test in rat, which involves operative procedures, are done in the Institute under the influence of proper anaesthesia. Only when entire blood of the animal like guinea-pig is to be taken out or the brain of the rats is to be taken out without any influence of anaesthetics, the animals are sacrificed by cutting the throat.

72. In the media room of the Institute, blood is taken out from the heart of rabbits without the use of any anaesthetics. With a little training and practice, the animal is held in such a way that it does not move even without any restraint; then a needle is pricked into the heart and blood is drawn with a syringe. This is not a very painful procedure and rabbit appears to be less sensitive to such needle pricks. The technique was demonstrated to the members of the Committee during their visit. In India usually 10 to 12 cc. of blood is taken out from the heart, while in England about 20 cc. of blood is usually taken out. After the blood has been drawn, the animals are given water by subcutaneous route and they feel refreshed very soon.

73. It was pointed out by the Director of the Institute that it is very much desirable that the animals in the laboratories should be housed in a proper way and there should be good up-keep and liberal supply of food. Expert animal Caretaker and sufficient number of attendants should be available for the comfort of the laboratory animals.

Indian Cancer Research Centre, Bombay

74. The experiments performed in this Institution do not involve operations harmful to animals. Mice, rats, hamsters, a few monkeys and poultry are used. The majority of the experiments are performed on mice and rats. The substances which are suspected of producing cancer in human beings are dissolved in suitable solvents and painted on the back skin of the mouse. If as a result of the painting the animals develop tumours of a cancerous type, they are killed so that they may not suffer pain.

Haffkine Institute, Bombay

75. This Institute undertakes experiments on live animals for study and research in pharmacology, physiology, bacteriology, pathology, serology, bio-chemistry, chemo-therapy, virus, nutrition, entomology, etc. The Director told the Committee that except for a few experiments in which anaesthesia is not used, all others do not involve any cruelty to animals as they are done under anaesthesia. Even in those in which anaesthesia is not used, care is taken to see that they do not suffer from pain. The method of taking out venom from cobras and vipers for preparing anti-venom serum was demonstrated to the Committee. The way in which venom was actually extracted from the viper did not appear to cause any pain or suffering to it.

Hindustan Anti-Biotics (Private) Ltd., Pimpri (Poona)

76. All the penicillin produced by this factory has to pass certain tests according to the Drugs Act of the country. The Control Laboratory of the Factory undertakes these tests. Two of these tests, for Pyrogen and Toxicity, require the use of experimental animals. For the Pyrogen test, well fed and well kept rabbits are used. A small quantity of penicillin is injected into a rabbit and observations are made to see if its body temperature rises above the normal. If the temperature rise is more than 0.6 degree C., the penicillin is said to contain pyrogen and is likely, if injected into human beings, to give rise to temperature. Such penicillin therefore cannot be used. For Toxicity test, mice are injected with a small quantity of penicillin and they should not show any signs of toxicity. Rabbits used for Pyrogen tests are not used more frequently than once every 48 hours if the previous tests did not show any Pyrogens. If, however, the previous tests did show the effects of Pyrogen, the animal is given a rest period of two weeks. In the case of Toxicity tests on mice, not more than two tests are done on the same animals. The animals are kept in air-conditioned rooms to ensure uniform comfort conditions.

Virus Research Centre, Poona

77. The Centre is primarily interested in the study of arthropod-borne viruses which include many of the human encephalitis viruses. Experiments are carried out on mice for the isolation of viruses and for neutralization tests. Monkeys are used for testing the pathogenicity viruses for monkeys and to produce anti-serum. Generally, only one inoculation is given in the brain of each monkey under anaesthesia and most of the monkeys survive the experiment without any permanent physical harm. They get fever after inoculation but later recover completely, though some occasionally get encephalitis. Those monkeys which develop this disease are kept separately so that other monkeys cannot attack them. Besides mice and monkeys, other animals such as rabbits, guinea-pigs, sheep, hamsters and cotton-rats are used in the Centre for different types of experiments. All experiments are performed under the influence of light either anaesthesia. Each animal

is subjected to only one experiment. Most of them survive the experiments. Owing to the use of anæsthesia, very little pain is caused to the animals during experimentation.

Indian Veterinary Research Institute, Izatnagar, Bareilly (U.P.)

78. The Committee visited the Biological Products Division of the Institute in which animals are maintained mainly for the production of Sera used for prophylactic inoculations against some of the cattle diseases, like Rinderpest, Hæmorrhagic Septicæmia, Black Quarter and Anthrax. Buffaloes are used for this purpose as they are easily procurable and it is comparatively easy to separate serum from their blood and only male buffaloes are used. Very young animals are not used for this purpose as they do not develop satisfactory response to inoculations, which is a pre-requisite to the productions of potent Sera. The buffaloes used are not very old and are between 600-1,000 lbs., live body-weight.

79. After collecting blood periodically for a particular kind of serum, the animals are properly fed, taken good care of and given rest for a period of 2 to 3 weeks before they are used again for another class of serum. This process continues for a period of 322 days if the animals are used for the production of all the four kinds of Sera. The quantity of blood drawn out of animals depends on their general condition and also on their body weights. In all, the animals have to undergo 40 bleedings for the production of all the four types of Sera mentioned above. Anæsthetics are not used in the bleeding operations because the operation is not very painful. On the completion of these experiments the animals are sold off to the contractors.

80. To ensure that the same animals are not supplied to the institute again, the left ear of every animal is punched before disposal to bear in identification.

Central Drug Research Institute, Lucknow

81. The primary object of the Institute is to undertake investigations on ancient indigenous drugs and also to find out new remedies for the disease conditions which are peculiar to India or are largely prevalent in India and for which no worth-while remedies have so far been discovered. The Institute also helps the growing drug industry of India by placing at its disposal the technical 'know-how' and analytical and standardization methods for the production of pharmaceuticals of proper quality. The Institute uses mostly smaller laboratory animals such as white or brown rabbits, white mice and guinea-pigs in large numbers and comparatively larger animals such as monkeys, sheep, dogs, cats, etc., only occasionally. It also uses pigeons, fowls, chickens and chick embryos for experimental purposes. The smaller animals are very largely used for testing the toxicity of drugs as no unknown drugs or substances can be given to human beings without first trying them on laboratory animals. The Director gave an example of research done on an Indian indigenous drug known as 'Sarpagandha' (*Rauwolfia Serpentina*) which has become a drug of world importance. After the use of anæsthesia, an artery in the neck of the animal was cut open and connected with a blood pressure-recording device, and the blood pressure of the animal recorded before and after the administration of an extract of Sarpagandha. Simultaneously, the respiration and the effects of the drug on the intestine, etc., of the animal were also recorded. The con-

clusion derived from this experiment was that Sarpagandha helped to lower the blood pressure of the animal and to stimulate its intestinal muscles, so that rapid purgation occurred.

82. In cases where poisonous drugs have to be administered to animals, care is taken to see that they are given in non-lethal doses, so that minimum pain is caused to them. If still the animal is found suffering from pain or convulsions, the dosage of the drug is immediately reduced and anaesthetics are used. All experiments where major operations are involved and animals have to be cut open, are done under the influence of a deep anaesthesia so that no unnecessary pain is caused to them. Quite often, experiments on isolated organs such as parts of intestines or uterus are undertaken and the animals have to be killed for the purpose. But this killing is done by methods which are humane and painless.

83. The animals are housed in a separate two-storeyed building which is completely fly-proofed and partially air-conditioned. All small laboratory animals are scientifically bred and reared in the Animal House under disease-free conditions. Food for the animals is cooked in a special kitchen under hygienic conditions. Adequate ventilation and exercise space for the stock animals are provided. The Institute takes very good care of the experimental animals for research purposes and is also supplying experimental animals for medical research in other institutions.

Prince of Wales Medical College, Patna

84. Guinea-pigs, rabbits, mice, goats, sheep, etc., are used for experimentations in the College. Goats are used for the study of the growth of flesh and for experimentation in the case of bone fractures. Mice and also other animals are used for testing the toxicity of various drugs. This involves injections which are not painful and, therefore, do not require the use of anaesthetics. Guinea-pigs are used for experiments concerning tuberculosis and diphtheria. According to the Director, there is not much pain and suffering involved in the experiments as most of them, particularly the major operations, are done under the influence of anaesthetics.

Laws to regulate experimentation on animals

85. It will be observed from the description, in the preceding Chapter, of the present laws and rules in India for the prevention of cruelty to animals that neither the Prevention of Cruelty to Animals Act of 1890 nor any other laws enacted by the State Governments on the subject seek to regulate the use of animals for experimentation. There are, however, such laws in certain countries like the U.K., Australia, Finland, Denmark, Netherlands, Sweden, Germany and British West Indies. An account of the manner in which these countries have attempted to regulate by legislative measures experimentation on animals with the principal object of preventing avoidable cruelties involved, is given below:

United Kingdom

86. The Cruelty to Animals Act, 1876 of U.K. is administered in England, Scotland and Wales by the Home Secretary and similar legislation is in force in North Ireland, Eire and Isle of Man and in certain other places. The Cruelty to Animals Act was amended in 1876 on the recommendations of the Royal Commission by extending it to the case of animals which, for medical, physiological and other scientific purposes, are subjected,

when alive, to experiments calculated to inflict pain on them. Probably the question of pain was a debatable point and consequently another Royal Commission was appointed in 1906 which considered the question for six years. The Commission recognised in principle that even the pursuit of knowledge must recognise a limit to the pain which could be inflicted on an experimental animal but that it would be inconsistent and unreasonable to impose greater restrictions on the infliction of pain for the advancement of knowledge than what public opinion sanctions in the pursuit of sports, in carrying out such operations as castration and spaying or in the destruction of rabbits and rats and other vermins by traps and painful poisons.

87. The following restrictions are imposed by this Act with respect to the performance on any living animal of an experiment calculated to give pain:

- (i) The experiment must be performed with a view to the advancement by a new discovery of physiological knowledge or of knowledge which would be useful for saving or prolonging life or alleviating suffering or for testing a particular former discovery if it is certified that such testing is absolutely essential for the effectual advancement of such knowledge.
- (ii) The experiment must be performed by a person holding a licence from the Secretary of State and in a registered place.
- (iii) The animal must, during the whole of the experiment, be under the influence of some anæsthetic of sufficient power to prevent the animal feeling pain, except when a certificate is given that insensibility cannot be produced without necessarily frustrating the object of such experiment.
- (iv) The animal must, if the pain is likely to continue after the effect of the anæsthetic has ceased or if any serious injury has been inflicted on the animal, be killed before it recovers from the influence of the anæsthetic which has been administered, except when a certificate is given that so killing the animal would necessarily frustrate the object of the experiment, and provided that the animal be killed as soon as such object has been attained.
- (v) The experiment shall not be performed as an illustration of lectures in medical schools, hospitals, colleges, or elsewhere, except when it is certified that the proposed experiments are absolutely necessary for the due instruction of the persons to whom such lectures are given with a view to their acquiring physiological knowledge or knowledge which will be useful to them for saving or prolonging life or alleviating suffering.
- (vi) The experiment shall not be performed for the purpose of attaining manual skill.

88. Besides the aforesaid restrictions, the Act illegalises any exhibition to the general public of experiments on living animals calculated to give pain. Any person performing experiments under this Act may be required by the Secretary of State to report to him from time to time the results of such experiments in such form and in such details as may be required. Inspectors may be appointed to visit the registered places of experimentation from time to time to see that experiments are being carried on in accordance with the provisions of the Act. Every application for licence under the Act

must be signed by one or more of the scientific bodies enumerated in the text of the Act. If a Justice of the Peace has reason to believe that an unlicensed person is performing experiments in contravention of the Act in an unregistered place, he may authorise any officer or police constable to enter and search such place.

89. Besides the above Act, which deals only with animal experimentation, the performing of any operation on an animal without due care and humanity is prohibited under the U.K. Protection of Animals Act, 1911*.

90. Recently, another law has been passed in the U.K. making specific provisions for the use of anaesthetics in experiments. The U.K. Protection of Animals (Anaesthetics) Act, 1954 (which repealed the earlier Act of 1919) provides for the use of anaesthetics in certain operations performed on animals. The Act says that if any operation is performed on any animal without the use of anaesthetics administered so as to prevent any pain during the operation, that operation will be considered to have been performed without due care and humanity. Further all operations, performed with or without the use of instruments, involving interference with the sensitive tissues or the bone structure of the animal, must be performed under the influence of anaesthetics, except the operations including (i) injections or extractions by means of a hollow needle, (ii) operations authorised under the Cruelty to Animals Act, 1876, and (iii) minor operations performed by a veterinary surgeon or a veterinary practitioner which, by reason of their quickness or painlessness, are customarily performed without the use of an anaesthetic.

Australia

91. In Australia, there are national laws controlling the technique of animal experimentation. The laws generally divide the experiments performed on animals among (1) surgical operations, (2) operations for physiological or pathological investigations or operations of the nature of feeding experiments, and (3) operations of the nature of inoculations. All these three categories of experiments are to be performed only by (a) a legally qualified medical practitioner, or (b) a veterinary surgeon, or (c) a person connected with universities, or (d) a person holding a licence under the law, or (e) an assistant or employee of any of the authorised persons mentioned at (a), (b), (c) and (d). All surgical operations, except such as are necessary for the treatment of disease or injury, should be performed under an anaesthetic, the influence of which should last till the end of the operation. Where permanent injury or discomfort results or is likely to result to an animal from any operation, it should be killed with as little suffering as possible at the end of the operation. In the case of the experiments in the other two categories, viz., operations for physiological or pathological investigations or feeding experiments and inoculations, anaesthetics must be used where they are likely to cause pain to the animals. The licence-holder may be required by the licensing authority to furnish to the latter reports in the prescribed form on the results of any, each or all of the experiments performed by him.

Denmark

92. In Denmark, a legislation was enacted in 1891 and was subsequently amended in 1929. It governs "the use of warm-blooded animals for medical experimentation." A Bill was, however, introduced in the

*This Act does not apply to Scotland.

Parliament of Denmark about 2 years ago to grant specific permission for animal experimentation under certain regulatory conditions. The Bill also envisaged the issue of licences for a limited period of time and the maintenance of proper records. Demonstration, practice, surgery and any experimentation involving painful procedure must be carried out after fully anaesthetizing the animals, unless the purpose of the experiment is likely to be frustrated by the administration of such an anaesthetic. The Bill also provided for immediate destruction of animals after experimentation unless it was necessary to keep them alive. The Representatives of the Ministry of Justice and of Medical and Veterinary Faculties have the authority to check the books of records maintained by the experimenters and to publish the statistics of experimentation. One significant feature of the Bill was the exclusion of the term "Vivisection" in the text and the term preferred instead was "Use of Animals in Biological Research and Combat of Disease".

Finland

93. In Finland, the use of animals for scientific experimentation, in which pain or torment may be caused to them, is allowed, only by the permission of the proper Ministry, in an institute or laboratory directed by trained scientists which shall be performed under the responsibility of the Director of the Institute or Laboratory in such a way that no unnecessary pain is caused to the animals. It further provides that animal experimentation for teaching purposes should, as far as possible, be substituted by pictures, models, films and other audio-visual methods of education.

Netherlands

94. In the Netherlands, though there is no specific law on animal experimentation, the Dutch Penal Code provides for a fine or imprisonment of any person who, without reasonable object or with an excess of what is admissible for the achievement of such object, wilfully causes an animal pain or injury or impairs the health of an animal. Further, the withholding of necessary subsistence from an animal that wholly or partially belongs to him or from an animal that he is under obligation to maintain, makes the owner liable to prosecution.

Sweden

95. In Sweden, permission for the use of animals in experimentation must be obtained from the Board of Health. Use of animals is under the direction of the Director of the Hospital or the Institution concerned. If other methods of research are available, use of warm-blooded animals is not approved for the purpose. Dogs and cats are not used sooner than five days after purchase. Application for permission to use the animals must state the number of animals to be used, the purpose, the place where the work is to be done and the facilities available there for care of animals. In some of the Swiss Cantons, Regulatory Commission is set up, consisting of one member of a medical faculty and one member of humane society for granting permission to scientific institutions and other qualified places to conduct animal experimentation. The Commission also has the right to inspect or to send its representative to inspect the places where experiments are being performed on animals in order to ensure that the elaborate rules established for the care of animals and the kinds of procedures to be followed are observed by the persons concerned.

Germany

96. In Germany, the practice of intervention or treatment associated with considerable pain or injury to live animals is forbidden, except under the suggestion of the competent Reich or the highest District Authorities, when permission can be granted by the Minister of Interior to the scientific institution or laboratory to carry on scientific experiments on live animals. The scientific director must possess the required specialized training and reliability, appropriate installations should be available to undertake animal experiments and good lodging and maintenance of experimental animals must be ensured. Experiments may be performed only at the full responsibility of the scientific director or of any one fully empowered in his behalf, provided that such a person is scientifically trained for this purpose. Experiments for research purposes can be undertaken only when a specific hitherto scientifically unconfirmed result can be expected from them and in so far as they serve to elucidate problems that have hitherto remained unsolved. Experiments are required to be carried out under conditions of narcosis except where in the judgment of the scientific director it is absolutely in conflict with the purpose of the experiment or the pain and injury caused to the animal's well being is less than that which would be incurred if it were under narcosis. Experiments with horses, dogs, cats and monkeys may be carried out only when intended results cannot be obtained from experiments with other animals. No more animals than those needed for the elucidation of the problem may be used. Animal experiments for teaching purposes are permitted only when other teaching devices, for instance, pictures, models, preparations and films do not suffice. One interesting feature of the German Law is that bleeding of animals or vaccinations carried out for the preparation of sera and vaccines by methods already tested and approved by the State, are exempted from the operation of the general laws on animal experimentation.

British West Indies

97. In British West Indies, there is a regulatory law on animal experimentation modelled after the one in force in the U.K. The law specifically permits animal experimentation, but with numerous provisos and injunctions, such as (a) no animal experiments are allowed for the purpose of gaining manual skill; (b) teaching or demonstration experiment is permitted but only after obtaining a special teaching licence which is valid only for the type of experiments described on it and for a period of 12 months only. The law seeks to ensure the maintenance of laboratory records which are liable to inspection by proper authorities. Only one operation on one animal is permitted under anæsthesia and the animal has to be killed after the procedure. Provision is made, however, for waiving any of these restrictions, if need be.

Need for legislation to regulate animal experimentation in India

98. The scientists whose views are available with the Committee have generally opposed the imposition of any restrictions, legislative or otherwise, on animal experimentation in India for the following reasons:

- (i) India is very much behind other advanced countries of the West in the matter of scientific and medical research. There are very few institutions in the country which are engaged in carrying on research on animals and in producing sera, vaccines,

drugs, etc. The effect of legislation will be to impede the progress of the little research work that is being done in the country and this will be highly detrimental to its interests. Moreover, almost all the medical research institutions in the country are at present controlled by Government in one way or another.

- (ii) In this age of the increasing use of anæsthesia in experimentation on animals, the necessity of having a law with the object of preventing pain and suffering caused to animals during experimentation, hardly arises.
- (iii) The amount of work relating to animal experimentation being done at present in India is not so much as to justify the appointment of a host of inspectors or any other enforcement staff who will have to be appointed under the law to enforce it.
- (iv) Such a law will be difficult of enforcement and will, therefore, fail to achieve its purpose. Besides, the inspectors in their zest to exercise their powers will unnecessarily harass the scientific workers and thus harm the cause of scientific research.
- (v) Some of the institutions in the country are manufacturing important biological products for which India was previously dependent upon other countries. Certain biological products still continue to be imported from outside, although serious efforts are being made to increase their internal production so as to make the country self-sufficient. The imposition of legal restrictions is bound to interfere with the manufacture of such products.
- (vi) There would be an interference with the effective teaching of biology and medicine in schools and colleges, as this particular aspect might also come under the purview of the law.
- (vii) The number of animals used in all the scientific institutions in India forms a negligible fraction when compared with those used for human consumption or which die a natural death.
- (viii) The housing, feeding and breeding of experimental animals are well looked after in the institutions.

99. The scientists have pointed out that the enforcement of the law existing in U.K. for the regulation of animal experimentation is far from satisfactory. According to them, the law was passed at a time when the use of anæsthesia was practically unknown in England and there was a strong public opinion in favour of it. Even the scientists did not oppose the enactment of the law as they thought that it would save them from unnecessary public criticism. Since 1876 the conditions have vastly changed in all countries and the present conditions in the scientifically advanced countries do not indicate the need for having a law to regulate animal experimentation. The U.S.A. which is one of the most scientifically advanced countries of the world does not have any legislation on the subject. The Royal Society for the Prevention of Cruelty to Animals and certain other humanitarian organizations in London have reported to the Committee that the supervision of experiments carried on under the licence granted under the U.K. Cruelty to Animals Act of 1876 is totally inadequate. The number of experiments has increased since 1876 from

between 300 and 400 in that year to over 46,000 in 1906, while the increase in the strength of the inspectors during that period is only from 2 to 3. Thus, the number of inspectors is absolutely inadequate for maintaining proper supervision over the use of animals in the British laboratories. It is impossible for this disproportionately small number of inspectors to exercise any supervision while experiments are going on every day in all parts of the country the result is that the reports which they are required to submit periodically to the Government are not based on their on-the-spot inspection of experiments; they are taken from the reports made to them by the licensees. The R.S.P.C.A. has suggested that additional inspectors, who should not necessarily consist of medical men, should be appointed, that such inspectors should visit all licensed places of research frequently at various times unknown to the licensees and that all holders of licences should be required to declare that no experiments, except those duly reported in accordance with the terms of the licence, have been performed by them; they should also be required to make a return of all animals required by them and how they have procured them.

100. The majority of the humanitarians in their evidence to the Committee have, on the other hand, pleaded for legislation to abolish experiments upon animals altogether. They feel that such experimentation is totally unnecessary, and some of them have gone so far as to urge that human beings have no right to inflict sufferings on animals for the benefit of mankind. A few of them have urged that scientists should be encouraged to undertake research to find out alternatives to experiments upon animals as, in their opinion, this field has not been explored at all. In their opinion it is quite conceivable that research in this field will lead to the elimination of experiments upon animals altogether. One section of them have also urged that instead of advocating total abolition, suitable legislation may be undertaken for controlling such experimentation with a view to its progressive reduction and elimination.

101. The Committee has given special attention to the reasons advanced by the medical profession against the imposition of restrictions, legislative or otherwise, on experiments on animals, as outlined in paragraph 98. The Committee is convinced that experiments on animals cannot be eliminated at the present state of development in our society if advancement in science is to be achieved and better methods devised for saving or prolonging life and alleviating suffering in both men and animals. The Committee has been told that as little pain as possible is, in fact, inflicted upon animals when they are experimented upon. The Committee has also been told that care of animals, both before and after experiments, is satisfactory, but this is true only in the case of the first-rate institutions some of which the Committee visited. Notwithstanding all these considerations, the Committee feels that some kind of legislation is necessary in order that the dumb animals are assured of as much protection as possible, and that experiments upon animals get reduced by progressive stages by indirectly encouraging scientists to divert their attention to discovering alternatives to experiments upon animals.

102. Some of the reasons which weighed with the Committee in coming to the conclusion mentioned in the preceding paragraph may be summarised as follows:—

- (1) Although the animals to be experimented upon are being looked after fairly satisfactorily, both before and after experimentation,

yet in one or two places which the Committee visited the conditions were not altogether satisfactory.

(2) Although most of the experiments on animals are carried on in Government laboratories which may claim to be better organised for the purpose, there are a few private laboratories where such experiments are being carried on and which require to be controlled and supervised.

(3) Experiments on animals are bound to increase to a large extent in the near future, particularly in view of the large sums of money which have been earmarked in the Second Five-Year Plan for the advancement of knowledge in this field. This may very well lead to the setting up of a number of private laboratories.

(4) There is no method of knowing whether all the experiments that are being carried on in the country are really necessary, and whether there is no duplication in them.

(5) No information is available as to whether it is possible to eliminate altogether certain types of animals which are in the higher stage of evolution such as horses, cattle, monkeys etc. for purposes of experimentation where the intended result could be achieved through experiments on smaller animals, thereby reducing the number of animals used for the purpose of experimentation.

(6) Notwithstanding the fact that the law in the United Kingdom is said to have been passed at a time when the use of anaesthesia was practically unknown in England, instead of repealing the law when the matter came up before the United Kingdom Parliament recently as it should have done if the above statement is entirely correct, the Parliament has proceeded to lay down what may be regarded as further restrictions in the matter. Moreover, countries as far removed from each other with regard to scientific development as the United Kingdom and Germany on the one hand and the West Indies on the other, have all chosen to have enacted law on the subject, and such legislation must indeed have been prompted not with a view to curb scientific advancement or to put any restrictions on *bona fide* research, but with a view to afford protection to animals as far as may be possible.

103. Considering the level of advancement reached in this country in this connection the Committee has no doubt that the law to be framed should be sufficiently flexible so as not to hamper research in any way. In the opinion of the Committee the agency for enforcing any legislation undertaken in this behalf could very well be left to an autonomous association created in this behalf. Too much interference at every stage of experimentation by any special enforcement agency employed under any law made for the purpose may well defeat the purposes that the Committee intends to promote under this legislation and may even kill the little research that is being done in our country.

RECOMMENDATION—The Committee recommends that legislation may be undertaken on the following lines:—

(1) A Committee should be constituted which may consist of the following fifteen persons:—

(a) two persons nominated by the Central Government from among the members of Indian Council of Medical Research;

- (b) two persons nominated by the Central Government from among the members of the Indian Council of Agricultural Research;
- (c) two persons nominated by the Central Government from among the members of the Council of Scientific and Industrial Research;
- (d) two persons nominated by the Central Government to represent Universities in India granting medical degrees;
- (e) two Members of the Parliament, one to be elected by the Lok Sabha and one by the Rajya Sabha; and
- (f) five non-officials nominated by the Central Government to represent persons actively interested in the promotion of animal welfare.

(2) The committee shall lay down rules designed to secure the following objects, namely,

- (a) that in cases where experiments are performed in any institution, the responsibility therefor is placed on the person in charge of the institution, and that in cases where experiments are performed outside an institution by individuals, the individuals are qualified in that behalf and the experiments are performed on their full responsibility;
- (b) that experiments are performed with due care and humanity, and that as far as possible experiments involving operations are performed under the influence of some anæsthetic of sufficient power to prevent the animal feeling pain;
- (c) that animals which, in the course of experiments under the influence of anæsthetics, are so injured that their recovery would involve serious suffering, are ordinarily destroyed while still insensible;
- (d) that experiments on animals are avoided wherever it is possible to do so; as, for example, in medical schools, hospitals, colleges and the like, if other teaching devices such as books, models, films and the like may equally suffice;
- (e) that experiments on larger animals are avoided when it is possible to achieve the same results by experiments upon small laboratory animals like guinea-pigs, rabbits and rats;
- (f) that experiments are not performed merely for the purpose of attaining manual skill;
- (g) that animals intended for the performance of experiments are properly looked after both before and after experiments;
- (h) that suitable records are maintained with respect to experiments performed on animals.

(3) In the making of rules the Committee shall be guided by such directions as the Central Government (consistently with the objects for which the Committee is to be set up) may give to it. The Committee may also be required periodically to submit reports to the Government.

(4) All rules made by the Committee shall be binding on all individuals performing experiments outside institutions and on persons in charge of institutions in which experiments are performed.

(5) For the purpose of ensuring that the rules made by it are being complied with, the Committee may authorise any of its officers or any other person in writing to inspect any institution or place where experiments are being carried on and report to it as a result of such inspection.

Power to prohibit experiments on animals.

(6) If the Committee is satisfied that the rules made by it are not being complied with by any person or institution carrying on experiments on animals, the Committee may prohibit the person or institution from carrying on any such experiments either for a specified period or indefinitely, or may allow the person or institution to carry on such experiments only subject to such special conditions as the Committee may think fit to impose.

(7) Any contravention of a prohibition order issued by the Committee or any breach of a condition imposed by it shall be punishable with fine which may extend to two hundred rupees, and when the contravention or breach of condition has taken place in any institution, the person in charge of the institution shall be deemed to be guilty of the offence and shall be punishable accordingly.

Procurement, housing, feeding and care of experimental animals

104. The medical research institutions in India doing experimental work on animals procure them through recognised dealers or associated institutes. Some of them even breed and rear animals at their own animal farms. At the Central Drug Research Institute, Lucknow, it was observed that one of the activities of the Institute was to breed laboratory animals under healthy conditions for their own use as well as for supplying them to other institutes in India.

105. As stated earlier in para 53, the Committee visited a few medical research institutions in the country and could see personally the arrangements for the housing, feeding and care of experimental animals, apart from the reports received on the subject from the other institutions which could not be visited. In some of the institutions Animal Houses are air-conditioned, quite spacious, well-ventilated, well-lighted and clean. The animals are given good and scientifically balanced diet. In some institutions there are separate enclosures for giving physical exercise to the animals daily in order to keep them fit. In others facilities for exercise are reported to be lacking or almost absent. This is mainly due to lack of space. The young ones of animals receive special attention and are kept in separate nurseries. The infected animals are kept in separate cages in special rooms so that their infection cannot spread to other animals. Animals are examined daily by trained staff to see that they do not suffer from any disease and are maintained in normal health. There are attendants specially appointed to look after the housing, feeding and care of experimental animals. In one institution it was seen that regular charts were maintained showing the stock in the animal house on each day, the scale and composition of ration supplied to them and other arrangements made for their care.

106. It is relevant to point out here that the few medical research institutions that were visited in the course of the enquiry, are considered to be first-rate institutions of the country and it was not a surprise that the arrangements for the housing, feeding and care of experimental animals in those places were more than satisfactory. But besides these institutions, there is a host of others in the country in which, according to reports received by the Committee, arrangements for housing, feeding and care are not adequate and leave much to be desired. Lack of finance and space are reported to be the chief difficulties in the way of improving the conditions and providing proper amenities to the animals before and after experimentation. One of the eminent scientists observed in the course of his evidence that proper attention has not been generally given in India to the housing and care of experimental animals. There is a good deal of truth in what he said.

RECOMMENDATION—The Committee attaches great importance to the proper housing, feeding and care of experimental animals before experimentation and their humane disposal afterwards. As far as possible, animals should be kept under more or less natural conditions. As regards the procurement of animals, the existing arrangements appear to be satisfactory. Regarding breeding, it will be far better if experimental animals are bred, as far as possible, under natural conditions. Proper care should be observed in the disposal of animals after experimentation so that unnecessary suffering is avoided.

Alternatives to animal experimentation

107. Besides the modern system of medicine which makes use of the drugs derived from experimentation on animals, there are other systems of medicine *e.g.* Homœopathy, Ayurveda, Unani etc. These systems differ from the modern system of medicine in this that they do not require any experimentation on live animals for ascertaining the therapeutic values of medicines for use on human beings or their dosages. In the Homœopathy, drugs are proved on healthy human subjects and the results so obtained are claimed by the homœopaths to be more direct and dependable than those yielded by research on animals. Similarly, the Ayurveda also does not generally rely on the use of live animals for any of its medicines. The same applies to the Unani system. The potentialities of these systems of medicine for treatment of human diseases have not been fully developed. To the extent that these systems can advance without the need for animal experimentation, they deserve encouragement.

108. It has been pointed out to the Committee that scientists themselves are anxious all the world over to find out suitable alternatives to animal experimentation. The great defect with research on animals is that it is quite difficult to find animals of standard quality to produce sera, vaccines, drugs etc. of standard potency. This factor is increasingly turning the attention of scientists to the finding out of synthetic or chemical media where all factors of experimentation can be effectively controlled, making it possible to produce results of standard quality. It is understood that one of the medical research institutes in the U.S.A. is trying to develop an alternative material from which the polio vaccine can be manufactured. As viruses require living tissues for their growth, efforts are being made to develop synthetic media which can sustain them equally well. According to the scientists, the use of synthetic or chemical media will yield definitely

more reliable results than the use of animals. The Committee regards it as a good augury for the future of animals as well as of mankind.

RECOMMENDATION—It is recommended that special efforts should be directed towards the finding out of suitable alternatives to animal experimentation on scientific, economic as well as humane grounds. Government should encourage the systems of medicine like Homœopathy, Ayurveda, Unani etc. as they need not rely on animal experimentation. Special emphasis should be laid on the exploration of alternative media in order to reduce progressively and ultimately eliminate the use of animals for purposes of experimentation.



CHAPTER IV

SLAUGHTER OF ANIMALS

Introduction

109. In India, millions of animals like cattle, buffaloes, sheep, goats and pigs are slaughtered every year both inside and outside slaughter-houses. A tremendous amount of cruelty of an avoidable kind is associated with the present methods of slaughtering animals. The conditions prevailing in slaughter-houses are far from satisfactory. Arrangements for the housing, feeding and watering of animals intended for slaughter in slaughter-houses are extremely inadequate. Mal-practices resulting in the slaughter of healthy and useful animals are quite common.

110. The various operations connected with the slaughter of animals can be divided into three stages: pre-slaughter, slaughter and post-slaughter. From the point of view of the prevention of cruelty to animals in a slaughter-house, only the first two stages are important.

Transport of animals to slaughter-houses

111. It has been reported to the Committee that animals are transported over long distances sometimes even 50 to 100 miles, to bring them to slaughter-houses. They are brought to slaughter-houses in rail or in lorries. Sometimes they are driven on foot. During transport by rail they are subjected to all sorts of cruelty resulting from over-crowding in railway wagons, inadequate supply of food and water, etc. During road transport they are exposed to sun and rain etc. and are seldom provided with food and water at regular intervals. Animals are over-crowded in trucks which are driven in utter disregard of the safety of animals or their requirements of food and water. They are usually badly tossed about in the trucks on the way with the result that they get seriously injured.

Often, they are driven along with their young ones which is a very pitiable sight. It has also been reported to the Committee that often there is a deliberate attempt on the part of the butchers to starve and mal-treat cattle on the way to slaughter-houses so that they may look famished and exhausted by the time they reach slaughter-houses and may be passed for slaughter by the Inspecting Officer.

112. Municipalities are generally charged with the responsibility of administering slaughter-houses in the various States. Although the bye-laws enforced by the municipalities for the regulation of slaughter-houses prescribe that "every person engaged in a slaughter-house in driving or bringing any animal to the place of slaughter shall (a) avoid, as far as practicable, driving or bringing the animal over any ground which is likely to cause the animal to slip or fall, (b) otherwise adopt such methods or precautions as to prevent the infliction upon the animal of unnecessary suffering or pain," they are not properly enforced in actual practice.

RECOMMENDATION—The Committee feels that the unnecessary suffering caused to animals during their transit to the slaughter-house can be

easily avoided and recommends that adequate precautions be taken on the way to protect them from the rigours of weather and provide them with food, water and rest at regular intervals. Markets for the sale of animals intended for slaughter should be located, as far as possible, near slaughter-houses so that animals may not have to travel long distances. The animals brought for sale to the market should be accommodated in pens to save them from exposure.

Housing

113. In the municipal slaughter-houses that the Committee visited, the arrangements for housing the animals intended to be slaughtered were found to be extremely unsatisfactory. The pens or lairs in which the animals were kept for inspection before slaughter were small and a large number of animals were huddled together in such a manner that they could not even move freely. In the slaughter-house at Tangra (Calcutta) one objectionable feature of the pens or at least of those facing the main slaughter-hall was that the animals in detention could see slaughtering being done right in front of them and consequently they became terror-stricken. In the slaughter-house at Perambur (Madras) also no proper arrangements existed for the resting of the animals before slaughter. They were herded together and brought in batches to the main slaughter-hall and slaughtered in full view of those awaiting a similar fate. The slaughter-house visited at Hyderabad had one disturbing feature in so far as the floor of the waiting shed for the cattle was covered with quagmire 4 in. to 5 in. deep during the wet season. The result was that the cattle after walking a little in the walled shed became immobilized because they did not have the strength to move any further in the soft and deep mud. It has been reported to the Committee that occasionally this immobilization and slippery floor led to the death of the cattle. The Committee also saw in these slaughter-houses that the lairs or pens were not properly paved and drained with the result that all the refuse such as urine and dung got accumulated creating very insanitary conditions. Moreover, there was no proper ventilation or lighting. Even some of the large slaughter-houses have no pens or lairs for the stalling of animals awaiting slaughter. Consequently, the animals have to be kept in the open, causing considerable nuisance due to the accumulation of dirt and dung in the open ground.

RECOMMENDATION—The Committee attaches great importance to the construction of pens or lairs large enough to accommodate comfortably the animals which are brought to the slaughter-house for slaughter. The animals should have sufficient space to move about. The size of a pen or lair in a slaughter-house should be determined by the average number of daily arrivals of animals in the slaughter-house. The floor of the lairs or pens should be well paved and adequate facilities should be available for the draining of refuse such as urine, dung of the animals kept therein. Proper ventilation and lighting are also necessary. There should be structures of a permanent character with strong roofing. The pens or lairs and slaughter-halls should be constructed in rows so that the animals awaiting slaughter cannot see those that are being slaughtered.

114. "The Model Rules for Meat Inspection and the Inspection of Slaughter-houses and their Regulation" lay down that "Lairs, pens or stables to be provided for food animals awaiting slaughter in connection with a slaughter-house shall not be within 100 feet of a dwelling place or building frequented by the public; they shall be properly paved, drained, ventilated and lighted and water supply in them should be convenient and

adequate for animals awaiting slaughter. No lair or stable in connection with a slaughter-house shall be so constituted or constructed that animals within it may see into any slaughter-hall or cooling room". This Rule provides all the necessary safeguards against the infliction of any cruelty on animals awaiting slaughter in the pens or lairs.

RECOMMENDATION—The Committee recommends that all municipalities should make necessary provision for proper housing facilities for animals awaiting slaughter in their bye-laws and enforce them strictly. In Appendix XIII are reproduced the "Model Rules for Meat Inspection and the Inspection of Slaughter-houses and their Regulation" for the guidance of municipalities.

Supply of food and water.

115. The arrangements for the supply of food and water to the animals awaiting slaughter in the pens or lairs are non-existent and even if present, they are extremely inadequate, as seen in the various slaughter-houses visited by the Committee. In the slaughter-house at Tangra (Calcutta) there was no arrangement for feeding the animals or providing them with water in the pens in which they were kept. The feeding was left to the good sense of the butchers or to the proprietors of the animals. The conditions in the other slaughter-houses that the Committee visited were also equally unsatisfactory. The availability of water at a long distance from the slaughter-house in small towns (where tap-water is not available) may be one of the reasons for the inadequate supply of water to the animals. But in big cities like Madras, Bombay, Calcutta etc. there should be no difficulty in the supply of water to the animals at regular intervals. The Model Rules for the regulation of slaughter-houses prescribe that "the owner or occupier of every slaughter-house shall cause every animal, brought to such slaughter-house for the purpose of being slaughtered, and confined in any pound, stall, pen, lair or stable upon the premises previously to being slaughtered, to be provided during such confinement with sufficient quantity of wholesome water; and if confined for more than twelve hours, to be provided with a sufficient supply of food".

"Suitable arrangement shall be made for the proper care and food of the animals while in the waiting yard by the owners or butchers at their own expense or by the local authority at the expense of the owners or butchers."

RECOMMENDATION—The Committee recommends that municipalities should make necessary provisions for proper feeding, watering and care of the animals awaiting slaughter in their bye-laws as laid down in the "Model Rules for Meat Inspection and the Inspection of Slaughter-houses and their Regulation" (Appendix VIII) and enforce them properly.

Ante-mortem inspection.

116. The primary object of ante-mortem examination is to ascertain that each animal which is intended to be slaughtered is in a satisfactory state of health so that it may be possible to prevent the slaughter of animals suffering from contagious diseases or such other diseases which may render the meat unwholesome for human consumption including those which may be communicable to human beings. A proper examination of animals before slaughter is also necessary for the detection of cases of cruelty to them on account of over-trucking, over-driving, insufficient supply

of food and water etc. during transit to the slaughter-house. It is also necessary to ensure that young, pregnant and useful animals do not get slaughtered.

117. Arrangements for the ante-mortem inspection of animals were found to be unsatisfactory in the slaughter-houses that the Committee visited. The evidence received by the Committee shows that the position in this respect in other slaughter-houses is no better. Ante-mortem inspection is carried out either in the lairages or open spaces round about the slaughter-houses.

118. It has been reported by various witnesses that in the slaughter-houses located in many small towns there is no arrangement at all for any ante-mortem examination of animals. In the slaughter-houses situated in big towns, on the other hand, ante-mortem inspection is performed but seldom by qualified veterinary surgeons; in most cases it is entrusted to sanitary inspectors who have not had the same training in this job as veterinary surgeons. The main reason for this unsatisfactory state of affairs is that Local Bodies which control slaughter-houses do not take the same interest in the proper examination of animals before slaughter as they should. Moreover, the present defective construction of the slaughter-houses, lack of sufficient space for the Meat Inspector to move about, the practice of skinning and dressing carcasses on the floor and the prejudice of butchers also stand in the way of a proper inspection of animals and carcasses. Added to this is the general indifference on the part of the meat-eating population of India to the quality of the meat supplied to them; whatever meat is produced by slaughter-houses is easily marketed.

119. Moreover, wherever the laws banning the slaughter of young, useful and productive animals are not properly enforced, mal-practices resulting in the slaughter of such animals are known to be quite common. The Committee was told at one of the places visited by it that a healthy cow was brought to the slaughter-house and was rejected by the veterinary surgeon as not fit for slaughter. The owner of the cow went away, broke its legs in the most inhumane manner and brought it again to the slaughter-house. It was then passed for slaughter. Healthy animals are deliberately starved to look lean and thin. Such mal-practices are said to be quite common.

120. The municipal bye-laws provide for a proper ante-mortem inspection to be carried out in almost all the municipal slaughter-houses, but these bye-laws are seldom enforced properly. The Model Rules for the regulation of slaughter-houses also prescribe that ante-mortem examination of animals should be made on the premises of the slaughter-house in which the animals are about to be slaughtered and should include "(a) examination for evidence of cruelty to animals by over-tracking, over-driving or by any other act, and (b) examination for the detection of animals in very emaciated condition or affected with disease in any form". The Bye-laws also provide that:—

- “(i) all stock showing signs of pregnancy shall be rejected and removed from the slaughter-house after being marked with some distinguishing mark;
- (ii) no animals with young at foot shall be permitted to be slaughtered;

- (iii) no stock in a febrile condition shall be slaughtered for human consumption in any slaughtering place;
- (iv) no stock showing ante-mortem symptoms of disease or suspected of disease shall be slaughtered until all other stock intended to be slaughtered at the slaughter-house on the same day have been slaughtered."

121. According to the bye-laws, where ante-mortem inspection of animals is not practicable or has not taken place, the butcher shall notify the Veterinary Surgeon or the Medical Officer of Health or the Meat Inspector in any case in which he has doubt as to the health of the animal and immediate steps should be taken to have the animal examined before slaughter.

RECOMMENDATION—The Committee recommends that :—

(1) whole-time veterinary surgeons and other trained staff should be employed in such slaughter-houses where the number of animals slaughtered is sufficiently large to justify the provision of such staff and other facilities. In the case of the slaughter-houses where the number of animals slaughtered is small, more than one slaughter-houses may be looked after by one veterinary surgeon helped by other trained staff;

(2) slaughter-houses should be so constructed that there is enough covered and enclosed space for the slaughter of animals and enough room for the Meat Inspector to move about and carry out his inspection work;

(3) uniform procedures should be laid down by all municipalities for the guidance of Meat Inspectors in their inspection work.

Conditions prevailing in slaughter-houses.

122. Among the various places visited by the Committee, the Members did not come across any slaughter-house constructed on modern lines which fulfilled the requirements of hygiene, sanitation, public health and of the prevention of cruelty to animals. As the slaughter-houses visited by the Committee were large and situated in big cities, it can be inferred that there is hardly any slaughter-house at present in India which can be called 'modern'; in fact there is sufficient evidence to support the conclusion that there is none. Most of the slaughter-houses, even in large towns, are old structures built at a time when the number of animals slaughtered there every day was not large. With the growth of population in these towns, the demand for meat has increased, leading to a tremendous increase in the number of animals killed daily for food, while the structures have undergone little change to cope with the increased number. There is, therefore, congestion and over-crowding in all the slaughter-houses today. In the sheep and goats section of the slaughter-house at Bandra (Bombay) about 2,500 animals are slaughtered daily, whereas the space provided would hardly be adequate even for 500 animals.

123. The floors of slaughter-house are not smooth and in small towns they are not even paved. The irregular surface of floors and walls encourages the accumulation of dirt and makes the task of keeping the place clean more difficult. Arrangements for keeping off flies from the carcasses

are usually absent. Animals are brought in groups to the slaughter-hall for being slaughtered and one is slaughtered in full view of the others. Due to lack of space, all operations such as killing, flaying, removal of the viscera etc. are carried out in one and the same place. There are not separate cubicles for the slaughter of animals, and no separate rooms for flaying and dressing the carcasses. Arrangements for drainage and disposal of waste are either lacking or inadequate at most of the slaughter-houses. Also, there are no arrangements for the proper collection of blood with the result that most of this valuable article is lost. Inadequate water supply is another factor that hampers the task of keeping the slaughter-houses as clean as they should be. In many slaughter-houses slaughtering is done either in the early hours of the morning or late in the evening but there are no proper arrangements for lighting the premises.

Construction of modern slaughter-houses

124. The Committee lays great stress on the replacement of the present slaughter-houses by those constructed on modern and scientific lines with full facilities for the proper care, management and ante-mortem inspection of animals. Unless this is done, it will not be possible to effect any improvement in the lamentable conditions that obtain in slaughter-houses today. The detailed plan of a modern slaughter-house suitable for Indian conditions can be worked out by experts. Broadly speaking, they will have to keep the following considerations in view while designing a modern slaughter-house :—

- (a) The market where animals are purchased by the butchers for slaughter should be situated, as far as possible, near the slaughter-house, so that the cruelties commonly perpetrated on animals in transporting them over long distances to the slaughter-houses, may be avoided.
- (b) Pens or lairs, in which animals are kept before slaughter, should be sufficiently commodious and adequate arrangements for the supply of food and water to them should be made. They (pens or lairs) should be well-ventilated and well-lit.
- (c) The shed for the ante-mortem inspection of animals should be large enough to accommodate all animals to be examined on any one day.
- (d) There should be separate compartments in slaughter-houses for (i) cattle, (ii) sheep and goats, and (iii) pigs.
- (e) A separate cubicle should be provided for each operation, *e.g.*, killing, flaying, dressing etc.
- (f) The slaughter-hall should be so situated that the animals in the pens awaiting slaughter are not able to see the slaughtering of other animals.
- (g) There should be some arrangement whereby animals are brought into the slaughter-hall in a single file, and not in groups, through some kind of a railing. This is very desirable so that while one animal is being killed, the others do not see it.
- (h) The floors and walls should be smooth and impervious and there should be proper arrangements for the drainage and disposal of waste. The floors of the animal sheds and killing rooms should be non-slippery.

- (i) The supply of water in the slaughter-house should be adequate so that the floors may be kept clean and animals in the pens may be supplied with water at regular intervals.

125. It is felt that the establishment of a sufficient number of modern slaughter-houses in the country will take considerable time as it will require funds which municipalities by themselves may not be able to provide.

RECOMMENDATION—The Committee, therefore, recommends that a beginning may be made in this direction by setting up model slaughter-houses in big cities like Bombay, Calcutta, Madras etc. As its advantages become known to the municipalities in small towns and cities, they will also try to remodel their existing slaughter-houses on modern lines. In order to encourage and enable municipalities to undertake this programme of constructing modern slaughter-houses, the Central and State Governments should consider providing suitable financial and technical aid to them.

126. Apart from the considerations of hygiene, sanitation, public health and humaneness that the construction of modern slaughter-houses will promote, it will also help in providing better facilities for the preservation of glandular products of slaughtered animals which are used in the manufacture of medicines and pharmaceuticals.

127. For obvious reasons, the construction of modern slaughter-houses in villages is out of question, as at present even the defective slaughter-houses of the type available in towns do not exist there.

RECOMMENDATION—The Committee, however, recommends that in each of such villages where weekly 'hatias' or bazars are held and where animals are at present slaughtered in the open near the market place, some place (not far from the bazar) outside the village may be enclosed and covered and used as a slaughter-house. Cleanliness should be observed and proper arrangement for the drainage and utilization of blood should be made, so that the slaughtering of animals does not injure the religious susceptibilities of any community. The services of trained stockmen available at the tehsil or taluk veterinary hospitals may be utilized in the absence of a Veterinary Assistant Surgeon for the ante-mortem inspection of animals at the village slaughter-houses and for rendering any veterinary aid that may be required.

Location of slaughter-houses

128. Proper location of slaughter-houses is very important from the point of view of hygiene and sanitation. Almost all the slaughter-houses that the Committee visited were situated in the midst of cities. According to the available evidence, the majority of the slaughter-houses in different parts of the country are located in the midst of or in close proximity to towns and cities. Apart from the considerations of hygiene and sanitation, the location of slaughter-houses in the midst of cities is likely to offend the sensibilities and sentiments of the public, particularly the non-meat-eating section.

RECOMMENDATION—The Committee, therefore, recommends that slaughter-houses should, in future, be located at a proper distance from towns and cities. Care should, however, be taken to see that they are not built too far away from towns and cities as that will affect adversely the quick transportation of meat to the market place.

Admittance of visitors into slaughter-houses

129. As most slaughter-houses are at present situated in the midst of towns and cities, members of the public (other than those directly connected with the various operations in slaughter-houses) have free access to them. In the slaughter-houses that the Committee visited it saw women handling carcasses and children moving about freely in the slaughter-hall and playing with the dead bodies. Some were seen carrying the viscera and other organs of the animals. The Committee feels that the presence of women and children in the slaughter-houses and their witnessing all the time the slaughter of animals will tend to make them hard-hearted and callous, particularly towards animals.

RECOMMENDATION—It is, therefore, strongly recommended that women and children should not be allowed under any circumstances to enter slaughter-houses and they should also not be employed in any operation connected with the slaughter-house. Such a provision should be made in the bye-laws of municipalities and should be strictly enforced. It is further recommended that persons not connected with the operations of the slaughter-house should be admitted only with the prior permission of the authorities in charge thereof.

130. At present no check is exercised on the observance of municipal regulations relating to slaughter-houses except by the slaughter-house staff. There is evidence that this check is hardly sufficient and needs to be supplemented by non-official checks. For this purpose a group of local non-officials may have to be nominated by each municipality for the inspection of slaughter-houses in its jurisdiction.

RECOMMENDATION—The Committee recommends that municipalities should nominate 'Visitors' to the slaughter-houses under their control. These Visitors should visit slaughter-houses periodically and see that the municipal regulations are properly enforced. Such Visitors may include Municipal Councillors, Members of State Legislature, members of local humanitarian societies etc.

131. The Model Rules for the regulation of slaughter-houses provide that "no person other than the Veterinary Surgeon, Medical Officer of Health, Meat Inspector, bonafide butchers or their assistants and servants, or any other person or persons especially authorised by the local authority as for example, persons, their staff and merchants duly authorised by them, who are interested in the grading and marking of hides, meat or other animal bye-products, shall enter the slaughter-house premises during the process of slaughtering, skinning, dressing or cutting up carcasses". This Rule should be suitably amended so as to incorporate the above recommendations.

Use of instruments and appliances

132. It has been pointed out by some of the witnesses that in some of the slaughter-houses the instruments and appliances used for slaughtering animals are not in proper order so that their use causes undue suffering to the animals, although the existing municipal bye-laws provide for the use of such instruments and appliances, adoption of such methods and taking of such precautions as may be necessary to ensure that as little pain and suffering as possible is suffered by the animal in the process of slaughter.

RECOMMENDATION—The Committee recommends that the municipal bye-laws should be properly enforced so that instruments and appliances used by butchers, particularly the butcher's knife, are kept sharp and in proper repair in order to avoid any undue cruelty to animals.

Methods employed for slaughtering animals in India

133. In India, animals are slaughtered for food by one of the two following methods known as "Halal" and "Jhatka" :—

(i) "Halal" is largely practised by Muslim butchers and consists of cutting the throat with a knife with one quick sweep and severing the main blood vessels and allowing the animal to bleed to death. The meat consumed in India is produced mostly by this method.

(ii) "Jhatka" is followed by the Sikhs and some other non-Muslim Communities for slaughtering sheep and goats only. The animal is fastened to a small wooden box or tree by a rope and one man stretches and holds tight the hind legs while the other with a broad sharp knife, sword or axe severs the head from the trunk with one clean stroke. Sometimes the head of the animal is fixed inside a U-shaped wooden frame with the help of horizontal bolt and is then cut. In both the methods complete bleeding is aimed at as the blood undergoes putrefaction in a comparatively shorter time and thereby spoils the keeping quality of meat. The total amount of blood in animal's body is about 1/13th of its body weight and if the technique used in slaughtering is bad, some blood may remain in the body and thereby reduce the keeping quality of meat; but if bleeding is done efficiently, the remaining amount of blood is so little that it cannot do any appreciable harm to meat.

134. The method of slaughtering pigs is somewhat different from that of cattle, sheep and goats and is known as "sticking" or "spearing". After the animal is thrown on the ground, a short rope is tied round the muzzle to prevent biting and is held to keep the head of the animal pressed to the ground. A straight clean cut about $3\frac{1}{2}$ in. long is made anterior to the sternum with a slightly curved sharp-pointed knife about 8 inches long, which severs the jugular vein and permits rapid bleeding. The cut is made sufficiently deep so as to pierce through the surface fat layer, and a knife is thrust through the cut into the thorax to puncture the heart. In Madras, pigs are stunned electrically before they are killed. In villages, extremely crude and cruel methods are adopted for killing pigs.

Cruelties involved

135. The committee visited four slaughter-houses at Tangra in Calcutta, Perambur in Madras, Bandra in Bombay and in Hyderabad, to see the actual conditions prevailing therein and the methods employed for slaughtering cattle, sheep, goats and pigs.

136. At Tangra (Calcutta), there are three slaughter-houses maintained by the Corporation of Calcutta for (a) pigs, (b) cattle and (c) sheep and goats. The pigs were brought for slaughter in the main hall and forcibly made to lie on their sides. During this process the usual struggle, piercing squeal and grunts followed. The neck was then slit open anterior to the sternum severing the main blood vessels with a stab right into the upper portion of the heart. In summer season about 40 to 50 animals are

slaughtered daily, whereas during winter the average number increases to a figure between 60 and 70.

137. At the cattle slaughter-house, both cows and buffaloes were slaughtered. Until recently about 500 to 600 animals were being slaughtered every day, but owing to the restrictions imposed by the West Bengal Government on the slaughter of useful cattle the number has dwindled down to 25 to 30 per cent of the original figure. The animals were led to the main slaughter-hall in batches and gradually each of them, in full sight of those waiting, was made to lie on its side and slaughtered by the 'Halal' method. We saw that the neck was half severed from the trunk with one sweep of the knife. Before the actual slaughter, however, the neck was twisted to one side in order to hold it tight. This operation which took about half a minute involved the cutting down of the main blood vessels, the wind-pipe and the food canal. It appeared that the animal lost consciousness and physical sensibility to pain by the time the operation was complete. Sheep and goats were also slaughtered in a similar manner.

138. At Perambur, the Madras Corporation maintains a slaughter-house where sheep, goats and cattle are slaughtered in different sections. The animals were led in batches to the main slaughter-hall and butchered in full view of those awaiting a similar fate. The 'Halal' method of slaughter was used. The pigs were slaughtered in a nearby building. They were first stunned by an electrical appliance and then their necks were slit open.

139. The main cattle slaughter-house of the Bombay Corporation where about 300 cattle are slaughtered daily is located at Bandra, a suburb of Bombay. There was a waiting hall outside from which the cattle were led in batches to the main slaughter-hall and slaughtered one by one, while those awaiting their turn watched them. The Committee was told that animals were sometimes led to the place of slaughter right underneath the dripping carcasses of their fellow-beings hanging from hooks and owing to lack of enough space soon after partial severance of the necks they were thrown into a heap. It is not unusual to see in the heap the protruding hind legs of the animals slaughtered kicking in the air. It might be argued that the animals are not sensitive to pain at this stage, but the sight is gruesome, to say the least. At Bombay, the 'Jhatka' method of slaughter is practised in a small slaughter-house. There was a waiting pen and the animals were led singly to the slaughter-hall. At the root of the horns was tied a rope, the other end of which was knotted to a pole. The neck was severed with one stroke of a sharp sword. This method killed the animal instantaneously.

Methods employed for slaughtering animals in foreign countries

140. In many foreign countries food animals are generally not killed by cutting the main blood vessels in the neck without first stunning them. The Indian method of allowing animal to bleed to death while they are still conscious is considered to be slow and cruel and hence those countries adopt various mechanical and non-mechanical devices to produce insensibility in the animals before actually slaughtering them. The following are some of the methods in vogue in foreign countries :—

1. Non-mechanical apparatus which includes the ordinary pole axe, hammer, etc., is used for stunning animals. The pole axe consists of a steel head, one side of which is an axe and the

other a short rod fitted with a wooden handle about 3 feet long. The animal is struck on the forehead with the rod side of the pole axe, the rod penetrating the skull. The hammer is largely used for stunning animals in the U.S.A. and Argentina and consists of a 6 lb. heavy hammer head with a round knob on one side for striking the animal. The hammer is fitted to a long wooden handle. After stunning, the animals are slaughtered by cutting the main blood vessels of the neck and are left to bleed for about 5 minutes. This system is usually preferred in packing houses and as the brain of the animal is not damaged, it results in very efficient bleeding.

2. Mechanically operated instruments such as the Captive Bolt Pistol, known as the 'Humane Killer', are now in use in a large number of countries such as Great Britain, Switzerland, Germany, Scandinavia, etc. The pistol is placed at a suitable point on the skull of the animal and a bolt is fired. The bolt penetrates the brain and makes the animal unconscious, immediately. The animal, when unconscious, becomes insensible to the pain inflicted on it during slaughter.
3. Electrical stunning is commonly used in some countries to make small animals such as sheep, goats and pigs insensible to pain before slaughter. The Committee was told that in Holland *cattle are also stunned by electricity before slaughter. The electrical appliance for this purpose resembles a pair of tongs. Electrodes placed at the end of the tongs are fitted with spongy material which is soaked in brine before application, the brine overcoming the electrical resistance of the hair and skin and facilitating electrical conductivity when the head of the animal is gripped by the electrodes. This method produces unconsciousness by passing an electric current of adequate voltage through the brain of the animal.
4. The use of carbon-di-oxide gas for making animals unconscious before slaughter is a recent development. The Hormel, Company, an American meat packing plant, first found out its use in the year 1950. The Hormel Company has installed a carbon-di-oxide tunnel for anæsthetizing hogs prior to slaughter. The animals are transported along a moving platform through a concave tunnel in which they inhale the gas and rapidly become unconscious. During their trip through the tunnel they are made to inhale the gas in moderate concentration and within a few seconds they become unconscious. On emerging from the tunnel they are shackled by their hind legs, elevated to a bleeding-rail and slaughtered while still unconscious. The use of this gas for purposes of stunning animals has not yet become popular in the U.S.A. and the present position is that only the Hormel Company uses it for anæsthetizing hogs in the manner mentioned above. Carbon-di-oxide has recently been introduced in Denmark also where there is, at present, only one installation of the gas plant at Kolding.

Comparative merits of the various methods of stunning

141. The various methods, described above, aim at rendering animals insensible to pain before slaughter, and are, therefore, considered humane.

All are not, however, equally good and effective. For example, the hammer as a means of stunning animals is inefficient and has become more or less obsolete. If it does not hit the suitable point in the skull of the animal, will not become unconscious and will, therefore, suffer considerable pain. It is generally used only in the United States of America. As mentioned above, the Captive Bolt Pistol is the most popular of all the known devices for stunning animals and is in use in most European countries. It needs no special installation, is easier and less costly to maintain and is portable. Its use does not require any special training. Besides, some Captive Bolt Pistols are specially designed for small animals, while others can be used for all animals and both varieties are easy to handle. Their one defect, however, is that they injure the brain of the animal which is thus rendered unmarketable. So far as electrical stunning is concerned, it is also quite popular and is in use in some of the countries for certain small animals like sheep, goats and pigs. This method requires a well-trained operator for careful use and proper maintenance of the electrical apparatus. A steady voltage of 75 volts and an application of the tongs for a period of not less than 10 seconds are essential to make this method effective. If these two conditions are carefully observed, a state of complete unconsciousness may be effected in the course of a few seconds. There are factors, however, which influence the constancy of electric current so that a steady voltage for any length of time is very difficult to maintain. If the voltage for any reason drops below the required minimum, the motor nerves of the animal may be affected while the sensory nerves are left untouched so that though the animal may neither scream nor struggle after the application of the electrical tongs, it may still be sensitive to pain. With regard to carbon-di-oxide, it has been maintained that animals, if allowed to recover consciousness, are completely normal and healthy. This is not true of the Captive Bolt Pistol. The use of electrical appliances for stunning is, however, limited as electric current is not available everywhere and it can be conveniently used on small animals only. However, with the extension of electrification to the towns and villages of India which do not have electricity at present, its use will gradually increase. As regards carbon-di-oxide, it may not commend itself for a common use on account of the cost involved, as it requires a special installation. This cost will be ultimately reflected in the price of meat which the consumer has to pay. This is an important consideration. Moreover, according to the report of the first meeting of the Expert Committee on Meat Hygiene, held in December, 1954 at Geneva, "further experimentation is needed to determine whether this method is applicable in plants of different sizes and for animals other than swine."

Legislation relating to humane slaughter

142. Switzerland was the first country which introduced the practice of stunning animals before slaughter in 1874. Subsequently, several countries have enacted legislation for this purpose. At present humane slaughter legislation exists in the U.K., Netherlands, Norway, Germany, Finland, Fiji, Sweden, New Zealand, Denmark and parts of France, Austria and Australia. The U.S.A. also has recently introduced a Bill requiring the use of humane methods in the slaughter of livestock and poultry. This Bill has not yet been passed into law. Section 2(a) and (b) of the Bill provides that "2(a) no slaughterer shall hoist, cut, scald, skin, bleed or slaughter any

livestock unless such livestock has first been rendered insensible by mechanical, electrical, chemical, or other means determined by the Secretary to be rapid, effective, and humane.” “(b) No slaughterer shall bleed or slaughter any poultry unless such poultry has first been rendered insensible by the severing of the head from the body, or by any electrical or other means determined by the Secretary to be rapid, effective, and humane.”

143. The Slaughter of Animals Act of 1933 and 1951 in the U.K. also provides that “subject to certain exceptions, none of which applies to horses, animals shall be instantaneously slaughtered or be instantaneously rendered insensible to pain by stunning until dead and that such slaughtering or stunning shall be effected by a mechanically-operated instrument in proper repair. A person shall not use any instrument for this purpose “unless his ability and physical condition qualify him to use it without inflicting unnecessary pain on the animal”, nor shall any person “use a mechanically-operated instrument in such manner or in such circumstances or in such a state of want of repair as to incur the risk of causing unnecessary suffering to an animal.” The act also prescribes the use of such instruments and appliances and adoption of such methods of slaughter and otherwise taking such precautions as may be requisite to secure the infliction of as little pain and suffering as possible.

Feasibility of adopting humane methods of slaughter in India

144. Complete bleeding and avoidance of unnecessary pain are the main considerations upon which the suitability of different humane methods of slaughtering animals should be judged. The most convenient and humane method of slaughter may be regarded as that under which the animal is made insensible to pain before it is slaughtered.

145. No witness who has been examined by the Committee has raised any objection to the introduction of any humane method which ensures that the animal is rendered insensible to pain before it is actually slaughtered. It has, however, been pointed out on behalf of certain communities that their religions prescribe a particular method of killing and that the adopt of any method of slaughter which would run counter to such religious prescription would not be acceptable to them. It has also been pointed out that the use of ‘Captive Bolt Pistol’ results in injury to the animal and the adoption of this method will not be acceptable to certain communities. The adoption of any humane method which can ensure that the animal is only rendered unconscious and is not dead at the time of slaughter would be generally acceptable.

146. From the point of view of the prevention of cruelty to the thousands of animals that are slaughtered daily in India, the Committee would strongly favour the introduction, as early as possible, of any of the humane methods discussed earlier for rendering the animal insensible to pain at the time of slaughter which may, after examination, be found suited to Indian conditions. If the members of any community whose religion prescribes specific methods of slaughter still entertain any misgivings on the subject, any legislative measure undertaken in this behalf may make special provision for the purpose of allaying any such misgivings. The laws on humane slaughter in force in the United Kingdom, as also the Bill recently moved in the House of Representatives in the United States of America, afford some guidance in this respect. The U.K. Act provides that “Nothing in this section shall apply to the slaughter of any animal slaughtered without the infliction of unnecessary suffering, (i) by the Jewish method for the food

of Jews and by a Jew duly lincensed for the purpose by the Rabbinical Commission constituted in accordance with the provisions of the First Schedule to this Act : or (ii) by the Mohammedan method for the food of Mohammedans and by a Mohammedan". Similarly, the American Bill provides that "(c) The requirements of this section shall not apply to any individual who is duly authorised by an ordained rabbi of the Jewish religious faith to serve as a schetor, while such individual is engaged in the slaughtering of livestock or poultry in accordance with the practice of such religious faith".

RECOMMENDATION—The Committee recommends that legislation may be undertaken providing for the adoption in general terms of any such humane methods as would render the animal insensible to pain at the time of slaughter. For this purpose the law may leave it to the appropriate authority to adopt such mechanical, electrical, chemical or other means as is determined by it to be rapid, effective and humane, (vide section 2(a) of the American Bill, p. 102). These humane methods may be adopted in the first instance in all large slaughter-houses in big cities. At the same time a country-wide programme of widespread and sustained educative propaganda should be undertaken to explain to the public the object of humane methods of slaughter. In this particular work humanitarian institutions can play a useful role.

Recognised and non-recognised slaughter-houses

147. In India, there were 289 recognized and 1,366 unrecognized slaughter-houses in 1948-49 according to the figures published in the Report on the Marketing of Meat in India, 1955. The recognized slaughter-houses are those which are regulated and controlled by Municipalities and Cantonment Boards while the unrecognized slaughter-houses are conducted by private butchers and are not controlled by Local Bodies. The total number of animals slaughtered inside and outside recognised slaughter-houses in India in 1949, according to the same source, is shown in the following table :

					Number of animals slaughtered		Total
					Inside recognised slaughter-houses	Outside recognised slaughter-houses	
Cattle	..	..	..	..	536,768	732,361	1,269,129
Buffaloes	..	..	..	..	327,246	236,773	564,019
Sheep	..	..	..	..	6,287,406	6,394,431	12,681,837
Goats	..	..	..	..	8,901,769	8,643,033	17,544,807
Pigs	..	..	..	..	57,716	759,079	816,795
TOTAL					16,110,905	16,765,677	32,876,582

It will be seen that more than half of the total number of animals slaughtered in India are killed in unrecognized slaughter-houses which are

not controlled by any regulations and where all kinds of mal-practices involving avoidable cruelty to animals take place.

RECOMMENDATION—The Committee recommends that since cruelty to animals is more widely practised in unrecognised slaughter-houses, it is necessary to close them down and replace them by licensed slaughter-houses. To stop illicit slaughter of animals, the powers of police may also have to be increased and the punishments made more deterrent.

Laws, rules and bye-laws regulating the slaughter of animals

(i) State Laws :

148. **STATE LAWS.**—The cattle Preservation and Development Committee appointed by the Government of India in 1947 examined the question of slaughter of cattle in all its aspects and recommended, *inter alia*, total prohibition of slaughter of useful cattle and also the prohibition of unlicensed and unauthorised slaughter of cattle. In pursuance of these recommendations the majority of the States in India have, by now, passed laws preventing the slaughter of certain classes of animals so as to prevent avoidable cruelties involved therein. These States are Assam, Bombay, Andhra, Bihar, Madhya Pradesh, Madras, West Bengal, Hyderabad, U. P., Madhya Bharat, Mysore, Pepsu, Punjab, Rajasthan, Saurashtra, Travancore-Cochin, Ajmer, Bhopal, Manipur and Tripura. Of these, some States, namely, Madhya Bharat, Punjab, U.P., Bihar, Madhya Pradesh, Mysore, Rajasthan, Pepsu, Bhopal, Ajmer, Manipur and Tripura have imposed total ban on the slaughter of cows and of their progeny, bulls, etc. The laws for the regulation or control of slaughter of animals (bulls, bullocks, cows, calves, male and female buffaloes and buffalo calves) generally permit the slaughter of only such animals as are over 14 years of age and unfit for work or breeding or of such animals as have become permanently incapacitated for work or breeding due to age, injury, deformity or any incurable disease. The animals declared fit for slaughter are required to be slaughtered only in prescribed places.

Municipal bye-laws

149. Under the Municipal Act, Municipalities are empowered to frame bye-laws for the regulation and inspection of slaughter-houses and for prescribing conditions subject to which and the circumstances in which and the areas or localities in respect of which licences may be granted, refused, suspended or withdrawn, for the use of any place not belonging to any Municipality as a slaughter-house or as a market or shop for the sale of animals intended for human consumption. The municipal bye-laws provide, *inter alia*, for (a) the licensing of all butchers who slaughter animals in municipal slaughter-houses; (b) the ante-mortem inspection of animals to ensure that only those animals fit for slaughter are slaughtered; (c) the use of such instruments and appliances, adoption of such methods and taking of such precautions as may be requisite to ensure the infliction of as little pain and suffering as possible in the process of slaughtering animals; (d) the animals to be slaughtered or their carcasses to be dressed in such a manner that no other animal sees it; (e) adequate penalties for contravention of the bye-laws.

150. The Committee has received plenty of evidence to show that in actual practice the regulations regarding the slaughter of animals are

not being enforced properly with the result that the cruelties involved in the slaughter of animals go on unchecked. In spite of the laws preventing the slaughter of useful cattle, there is evidence that mal-practices resulting in the slaughter of young and useful cattle are quite common. The main reasons for the lack of proper enforcement of these regulations are :—

(a) The staff for veterinary inspection in municipal slaughter-houses is mostly inadequate.

(b) There is little or no check over the work of Veterinary Inspectors and in certain cases even young animals are passed for slaughter under pressure from butchers.

(c) The determination of the exact age of the animal which has passed its prime is difficult and to some extent it is a matter of personal opinion on the part of the Inspecting Officer.

(d) Most of the male calves of buffaloes are slaughtered against the regulations in unauthorised places as they do not serve any useful purposes in many cases and are unwanted.

(e) The powers of the police to control illicit slaughter are inadequate and the punishments awarded are not deterrent enough.

Municipalisation of slaughter-houses

151. For the proper enforcement of municipal regulations, for enabling improvements to be made in the general unsatisfactory conditions prevailing at present in the slaughter-houses, for the adoption of humane methods of slaughter and for eliminating, as far as possible, all types of cruelty involved in the slaughter of animals at various stages commencing from their procurement and transport, the Committee feels that the solution lies in the municipalisation of slaughter-houses, that is to say, by the complete assumption by municipalities of control over all operations relating to slaughter of animals from their procurement to their slaughter, and flaying and skinning of the carcasses etc. For this purpose municipalities will have to employ their own butchers for slaughtering animals, who will be paid employees of municipalities. They will have nothing to do with the trade in meat and other products of animals which could be left to suitable agencies to undertake. The income derived from slaughter-houses should be spent by municipalities on effecting improvements in slaughter-houses instead of being treated as part of the general revenues. The advantages of municipalisation would be that municipalities will try to procure only those animals which are good and fit for slaughter. Animals would be better looked after in the pre-slaughter stage. Ante-mortem inspection can be more effectively done as there will be no pressure exerted by butchers to pass even unfit animals for slaughter. Municipalities will only employ such butchers as are properly trained for the purpose; the adoption of humane methods of slaughter would become easier; improvements in slaughter-houses could easily be effected; in short, by municipalisation it should be possible to eliminate all the types of cruelty discussed in this Chapter. This suggestion, however, has not been formally put to any municipality by the Committee.

RECOMMENDATION—The Committee recommends that municipalisation of slaughter-houses in the above sense may be undertaken in convenient stages, and a start for the purpose may be made in big municipalities with

a population of 5 lakhs and more. The Committee wishes to emphasize that the income derived from slaughter-houses should be spent by municipalities on effecting improvements in slaughter-houses instead of being treated as part of the general revenues.

Model Rules for regulation of slaughter-houses

152. There are Model Rules framed by the Government of India for meat inspection and for the inspection of slaughter-houses and their regulation for the general guidance of and adoption by local authorities with the approval of the State Government, for the day-to-day administration of slaughter-houses under their control. The local authorities are empowered to make any changes, alterations or additions to suit their local conditions. The relevant extracts of Model Rules are reproduced in Appendix XIII. It will be seen that these Model Rules seek to regulate almost all aspects of slaughter of animals.

RECOMMENDATION—The Committee recommends that municipalities in India should adopt these Model Rules to the maximum possible extent, depending upon local conditions, and enforce them strictly with a view to preventing cruelties to animals before and during slaughter.



CHAPTER V

ANIMAL SACRIFICES

The Custom

153. The custom of animal sacrifice still prevails in some parts of India, though it is on the decline. The spread of education, propaganda by humanitarian institutions and workers, and legislative measures prohibiting it, have all contributed to its decline in most parts of the country. This custom has its roots in superstition and a perverted conception of religious values. The communities which observe it believe that by offering animal blood before deities they invoke their blessings, attain prosperity, get rid of ill omens, illnesses and evil spirits, and so on.

154. The ritual sacrifice of animals before deities to propitiate them is practised by some sections of the Hindus. The method adopted by them for killing the animals is "Jhatka", *i.e.* they sever the head from the trunk with one clean stroke. Even large animals like buffaloes, which are not sacrificed in such large number as goats and sheep, have been known to be killed with one stroke by a very sharp instrument. In some places there is a belief that if by any chance the head of the animal is not severed from the trunk in one stroke, all will not be well with the man on whose behalf the sacrifice was being made. So far as the Muslims are concerned, there is no sacrifice of animals to propitiate any deity. On the occasion of 'Urs' (Muslim fairs) and Bakra Id large numbers of animals are brought to the 'Urs' and sacrificed near the tombs of saints etc. The Muslims kill the animals on such occasions exactly by the same method as they use for slaughter in municipal slaughter-houses *i.e.* Halal.

Cruelties involved

155. The evidence produced before the Committee shows that sometimes extremely crude and cruel methods are employed to kill or maim animals before deities. The witnesses whom the Committee examined at different places narrated some of the typical acts of cruelty perpetrated on these animals. It is evident that the practice involving the infliction of cruelties on animals in the name of religion still obtains in certain remote areas of the country. One of the witnesses in Madras gave some gruesome details of the methods adopted for sacrificing animals in some parts of Madras State. In West Bengal, the Committee was told that at the time of Durga Puja the sacrifice of goats forms a regular feature in many places. On the Ashtami or Navmi days of Durga Puja the number of goats and also of rams slaughtered before the temple of Kali at Kalighat in Calcutta easily reaches the thousand mark. The goat or ram is secured by its front legs, which are then twisted over its back. With one hand holding the front legs so twisted over its back, and the other hand holding the hind legs and stretching them, the assistant to the butcher lowers it on the sacrificial block and the butcher immediately despatches it, completely severing the head from the body. The killing of buffaloes also involves cruelty. First, oil or butter is massaged on the back of the buffalo to make its skin

less tough. Then, ropes are tied to each of its four feet and then it is dragged to the sacrificial block. While it is standing near the block, the ropes are suddenly pulled in different directions so that it falls with a jerk of its heavy body with its head on the sacrificial block. The head is then secured on the block by a sort of contrivance or catch and the ropes tied to the hind legs are pulled by several people. The result is that its neck stretches, and with one stroke of the sacrificial knife it is killed. In some parts of Mysore all the four legs of the animals are tied together and they are fisted, beaten, pierced by sharp instruments, suffocated by pressing their throats and even flayed alive. Pregnant animals are sometimes sacrificed with the unborn still in their wombs.

Legislation

156. Under the Prevention of Cruelty to Animals Act, 1890 it is not an offence to kill an animal in a manner required by any religion or religious rites or usages practised by any race, sect, tribe or class.

157. From the evidence produced before the Committee it appears that the public are still not fully conscious of the need to put an end to the custom of sacrificing animals before deities and to the cruelties involved therein. Some of the States such as Madras, Mysore and Travancore-Cochin have, however, taken the enlightened step of enacting legislation to prevent animal sacrifices. No such law exists in other States. One of the earliest reforms in this direction was introduced in the State of Travancore. The legislation on the subject, however, came only in the year 1948 when Mysore State passed the Mysore Prevention of Animals Sacrifices Act. It was followed by Madras in 1950 and Travancore-Cochin in 1953. The Madras Animals and Birds Sacrifices Prohibition Act, 1950 was extended to Andhra on the formation of the State. The provisions of these Acts are basically the same in each State. The word 'sacrifice', as defined in these Acts, means the killing or maiming of any animal or bird for the purpose or with the intention of propitiating any deity. The laws seek to prohibit the sacrificing of animals or birds inside any temple or its precincts. The word 'precincts', as defined under the Acts, in relation to a temple includes all lands and buildings near a temple, whether belonging to the temple or not, which are ordinarily used for purposes connected with the worship conducted inside the temple or outside and in particular the mandapams, prakarams, back-yards, front-yards and foot-yards of temple; by whatever name called and also the ground on which the temple car ordinarily stands. Quite heavy penalties (imprisonment for 3 months or a fine of Rs. 300 or both in the case of Travancore-Cochin and an imprisonment for 6 months or fine of Rs. 500 or both in the case of Mysore) are prescribed for the contravention of the provisions of the laws.

158. The main weakness of the existing laws, wherever they exist is that they apply only to Hindu temples and, there, too, they seek to prohibit animal sacrifices only inside the temple or its precincts. The result is that people sacrifice animals outside the precincts of temples with impunity in any manner they like. For this reason and on account of the general indifference of the public to the cruelties perpetrated on animals during these sacrifices, the laws in these States are not properly enforced and consequently they have failed to achieve their objective. In Travancore-Cochin, however, animal sacrifices have completely disappeared as a result of the successful working of the law and the general awakening in the people of the State.

Need for prohibiting animal sacrifices

159. Almost everybody who has submitted written or oral evidence has strongly urged that the inhumane practice of sacrificing animals for the purpose of propitiating deities should be put an end to as soon as possible. The need for legislation supplemented by widespread educative propaganda has been stressed for this purpose. It has been pointed out by them that there may be a certain amount of opposition in the beginning to the imposition of any legislation prohibiting animal sacrifices, but it will soon die out as the public today appear to be in a better mood to receive favourably any such move. In some parts of India animal sacrifices have been totally stopped not by the force of any law but by educative propaganda, and arousing consciousness in the public. In Hyderabad animal sacrifices have been completely eliminated in the municipal limits of Hyderabad and Secunderabad by education and propaganda.

160. In the opinion of the Committee the sacrifice of animals is absolutely indefensible on moral or ethical grounds. It is a stigma on the fair name of religion under which people who perpetrate this sin take shelter. It is degrading for man and cruel for the animal.

RECOMMENDATION—The Committee, therefore, recommends that the sacrifice of animals, including birds, in any place of public worship or any other public place for the purpose of or with the intention of propitiating any deity, should be banned all over the country. For this purpose necessary legislation, either at the Central level or at the State level, may be initiated. It is, however, felt that any legislation seeking to put an end to animal sacrifices can succeed in achieving its objective only if a strong public opinion, created by such measures as education and propaganda, is at its back. In the building up of a public opinion humanitarian, religious and other organizations working for animal welfare in the country can play a really useful role.

In order to acquaint the public with the provisions of the Acts, it is necessary that they should be prominently displayed in local dialects over entrances to temples, and in other places of public worship or other public places, municipal buildings, police stations and police chowkies in villages, together with the penalties which one would incur by contravening these laws. As animal sacrifices are performed mostly in villages, any effective enforcement of the laws would require the active co-operation and vigilance on the part of Gaon Sabhas or Village Panchayats.

CHAPTER VI

ANIMAL SPORT

Need for sport

161. The written as well as oral evidence produced before the Committee has generally supported the continuance of animal sport such as hunting, shooting, fishing, etc. A few, however, advocated complete abolition of all forms of sport as according to them, sport causes a great amount of physical suffering to wild animals and birds hunted or shot, besides producing in them fear and terror. The Committee heard the Chief Conservators of Forests or their representatives at various places and also recorded the oral evidence of two prominent shikaris—one at Poona and the other at Jaipur. During its visit to Mysore, the expert opinion of His Highness the Rajpramukh of Mysore (who is the Chairman of the Indian Board for Wild Life) was also obtained on the question of hunting and shooting from the point of view of the cruelties involved. He was also of the opinion that hunting and shooting of wild animals provided a means of maintaining the balance of Nature, but these operations needed to be strictly regulated in accordance with the provisions of the existing game laws in order that they might not lead to abuses and excesses. The following arguments were generally adduced in favour of the continuance of animal sport:

(i) It is a means of restoring the balance of Nature, *i.e.*, the balance between animals such as deer (that would otherwise increase to such proportions as to become a great nuisance to cultivators, etc.) and the carnivora that would normally prey on them.

It was pointed out that instead of man interfering with Nature, natural processes should be allowed to work uninterrupted to bring about the balance between the different species of animals. The forest experts gave the Committee to understand that if animals in wild state were allowed to increase in number without any external interference, they would go on multiplying and in course of time would tend to reach the natural 'ceiling', necessitating a 'crash'. The crash invariably brings in its train large-scale destruction of the species which is considered most undesirable, unnecessary and wasteful. The Committee agrees with this view and feels that man's interference with Nature within reasonable limits is necessary to restore the balance.

(ii) It helps to eliminate or at least to keep under control the danger from excessive increase of such animals as wild pigs, Nilgais (blue bulls), jackals, monkeys, etc. which are particular enemies of agricultural crops.

(iii) The pursuit of game has been known to lead to valuable information regarding Nature and natural features and resources of remote forest areas which might otherwise have remained unexplored or untraversed.

(iv) Hunting has been recognised as a manly form of sport affording exercise and healthy relaxation to man from the strain and monotony of his daily routine. For a good sportsman it often happens that only the pleasure of the pursuit remains at the end of it and,

therefore, to deny him the possible fruits of such pursuit would mean denying him the opportunity of pursuit itself.

(v) It is also a means of providing food for human beings. To the people in the tribal areas hunting is an important, if not the only, means of livelihood.

Purposes of sport

162. Thus, the hunting and shooting of wild animals and birds may be resorted to for pleasure, food, livelihood, or commercialization. From the cruelty angle, it is hard to make any distinction between these various purposes of sport, except in the case of fishing which is done mostly for livelihood. There are those who would impose a complete ban on all sports indulged in for pleasure. For food or for livelihood, however, they would allow some shooting and hunting under strict regulations.

163. It may be mentioned in this connection that so far as licensing is concerned, only one kind of licence is issued to a sportsman for hunting and shooting, leaving him free to kill animals and birds either for pleasure or for food. Thus, in actual practice it is not possible to prohibit the one and allow the other. So far as hunting and shooting for commercial purposes is concerned, the existing game laws provide adequate safeguards for the purpose. They prohibit the sale of flesh of the animals and birds killed. Even the trophy of animals and birds is permitted to be sold only to the trophy dealers having the requisite licence.

Game Laws

164. The first law for the preservation of wild life, the Wild Birds Protection Act, 1887 (XX of 1887), was enacted in 1887. As is obvious, it was restricted only to wild birds. It was superseded by a more comprehensive Central Act known as the Wild Birds and Animals Protection Act, 1912. This Act extended to the whole of British India, including British Baluchistan, the Santhal Parganas and the Pargana of Spiti, and applied, in the first instance, to the birds and animals specified in the Schedule*. It empowered the Local Governments to extend the provisions of the Act to any kind of wild bird or animal (other than those specified in the Schedule* to the Act) which it was desirable to protect or preserve. It provided for a 'close time' during which no hunting or shooting could take place, and sought to prohibit (i) the capture or killing of any of the birds or animals (mentioned in the Schedule*), (ii) the selling or buying, or offering to sell or buy, or possessing (a) any of such birds or animals and (b) any plumage taken from any such bird captured or killed during the close time. It imposed a fine of Rs. 50 for any offence against the Act. It permitted the acts, mentioned above, provided they were considered necessary in the interests of scientific research. The capture or killing of wild animals in defence of human life or property was also allowed under the Act.

165. The game laws that now exist in almost all the States of India for the protection of wild animals and birds cover a much wider ground than

***THE SCHEDULE**

(i) Bustards, ducks, floricans, jungle fowl, partridges, peafowls, pheasants, pigeons, quail, sand-grouse, painted snipe, spur-fowl, wood-cock, herons, egrets, rollers and kingfisheries.

(ii) Antelopes, asses, bison, buffaloes, deer, gazelles, goats, hares, oxen, rhinoceros and sheep.

the Act of 1912 with respect to the different types of cruelties perpetrated during sport as also to the number of wild animals and birds sought to be protected. The game laws in every State seek to regulate hunting, shooting and fishing mainly in the reserved and protected forests. Such laws in the various States contain more or less similar provisions. They provide for the prohibition of:—

- (i) shooting any game from or by means of a wheeled or a mechanically propelled vehicle on water or land or by aircraft;
- (ii) the use of motor car, motor launch or aircraft for the purpose of killing, driving or stampeding any game;
- (iii) hunting any game with nets, snares, pit-falls, poison or poison-weapons, except in defence of human life or property;
- (iv) setting fire to any vegetation for the purpose of hunting;
- (v) the use of any artificial light for the purpose of hunting, except in the case of carnivora, over a natural kill;
- (vi) shooting any game during the hours of night, *i.e.*, one hour after sun-set and one hour before sun-rise, except in the case of carnivora, by sitting on a natural kill;
- (vii) shooting any game on a salt-lick or water hole or other drinking places or on paths and approaches to the same, except sand-grouse and water birds;
- (viii) hunting any game on any land of private ownership, without the consent of the owner or his agent or the lawful occupier of such land;
- (ix) poisoning any water or using dynamite or other explosive substances for fishing in any water; and
- (x) the setting of cruvies or fixed engines or snares for the capture or destruction of fish.

166. Apart from the game laws, it is obligatory on the part of every good sportsman to shoot only to kill and if by chance there is the slightest suspicion of his having only wounded the animal, he is expected to follow it up (how-so-ever dangerous it may be for him to do so) and destroy it expeditiously. The game laws of certain States specifically provide that if a game animal has escaped wounded, the sportsman must immediately report the matter to the competent authority in charge of the shooting block so that steps may be taken immediately to follow up the wounded animal and kill it. Wounded animals sometimes prove very dangerous to human life and property, apart from the fact that they themselves go through a great amount of suffering.

167. The game laws prohibit the hunting of the young of any game or the female of any game accompanied by its young. Even in the case of carnivora such as lions, panthers, tigers etc., their females are not be hunted if they are accompanied by their offsprings too young to fend for themselves. In some States such as U.P. there are rules controlling tiger-shooting in the reserved forests of the State. These rules prohibit the shooting of more than 4 tigers (not the man-eaters of Kumaon) in a year. These restrictions on tiger-shooting were imposed to save tigers from extermination in the reserved forests of U.P. In some States such as Madras even the photography of game with the aid of flash light is prohibited under the laws. Penalties, often quite heavy, are prescribed for the contravention of these laws.

Close Period

168. The game laws in every State prescribe 'close periods' during which the hunting and shooting of animals and birds are prohibited. These close periods are allowed in order to protect the female of the species or immature males, to avoid disturbing them during mating seasons, to provide adequate protection to animals and birds in danger of annihilation as also to those on the verge of extinction through wanton and excessive shooting. The close periods are different for different animals and birds. For instance, the Bombay Wild Animals and Wild Birds Protection Act, 1951 has declared the 1st April to the 30th September every year as the close period for all Small Game (Ducks, Geese, Swans, Hens, Barking Deer, Hyaenas etc.). This excludes Bustards and Pink-headed Ducks which are completely protected. The Act provides the whole year as the close period for certain animals* and birds* which require complete protection. All movements, including transport, are prohibited during the close periods, excepting movements for *bona fide* purposes, such as exchange of specimens by zoos, transport of animals and birds by circuses etc. The close periods are not permanent; they are subject to revision according to the exigencies of circumstances.

Licensing

169. The game laws require that every sportsman must have a licence before he is allowed to hunt or shoot any wild animal or bird in reserved and protected forests. The laws in most of the States classify game animals under different categories, viz., small game¹, big game² and special big game³ and separate licences are issued for these classes. No licence is required for hunting animals classified as 'vermins; such as wild pigs. Nilgais (blue bulls), jackals, monkeys, etc. which are particularly destructive to agricultural crops. The wild animals and wild birds, not included in these categories, stand completely protected. Licences are obtainable on applications in prescribed forms on the payment of fees. The Bombay Act prescribes the following scale of fees for the licences for the different categories of animals:

					Monthly Rs.	Annual Rs.
Small Game	..	..	..	..	10	20
Big Game	..	..	..	..	30	60
Special big game	..	..	..	..	—	100

* (i) Black Panther, (ii) Cheetah, (iii) Indian Lion, (iv) Elephant, (v) Indian Wild Ass (vi) Brow-anteloped Deer, (vii) Pigmy Hog, (viii) Bustard (including Great Indian Bustard) (ix) Pink-headed Duck, (x) Pea-fowl, (xi) White-winged Wood Duck, (xii) Female Indian Bison, (xiii) Female Sambar, (xiv) Female Cheetal, (xv) Female Black Buck and (xvi) Female Chinkara.

¹ Spot-bill Ducks, Nuktas, whistling Teals (large and small), Cotton Teals, Pink-headed Ducks, Great Indian Bustards, Ducks, Geese and Swans (all kinds other than those specified above), Water-birds (excluding Storks, Egrets and Herons), Bustards (excluding Great Indian Bustards), Sand-grouses (all species), Spur-fowls, Jungle fowls Partridges (grey and painted), Quails (all species), Pigeons and Doves (all species), Hares (all species), Nilgais, Black Bucks (males only with horns over 12"), Chinkaras (males only), Four-horned Antelopes, Barking-Deer, Hyaenas, Wolves.

² Sambars (males only with hard horns over 30"), Cheetals (males only with hard horns over 20"), Panthers, Tigers, Sloth Bears, Cheetahs.

³ Elephants (with at least one tusk of 18" or longer outside the socket,) Bisons (if horn measurements reach at least one of the following limits—(a) a span of 33" between the outer edges of the horns at their widest spread, (b) a girth of 18" at the base of the horn).

170. Licences are not transferable and are valid for the whole State. They are valid generally for a period of one year from the dates of issue and are to be returned to the licensing authorities within periods not exceeding 15 days from the dates of expiry, together with the records of game shot. The holders of licences are not allowed to sell the flesh of any game shot by them to any person. The trophy of any wild animal or wild bird, killed or captured by a licensee, cannot be sold to any person other than the holder of a Trophy Dealers' licence. These licences are mutually independent and exclusive. The licences prescribe the maximum limit of number of animals and birds to be shot during the period of the licence, except in the case of wild birds, hyænas, wolves, etc. for which no such limits are laid down.

171. Even for the possession of pet animals of birds, *i.e.*, wild animals kept in captivity or as pets, whether for pleasure or for profit, an animal licence has to be taken on payment of a fee of Re. 1 per head of animal and annas -/4/- per head of bird. However, for the possession of less than 6 animals or birds in the aggregate, no such licence is required. Zoological gardens, kept and maintained by public Bodies, are not required to take out such licences.

172. For purposes of trapping pets and other animals, a trapping licence is required and is issued on payment of fee of Rs. 50. Such licences, like other game licences, mentioned above, are required to be returned to the licensing authorities within periods not exceeding 15 days from the date of expiry, together with the records of game trapped.

173. Special licences are issued under the game laws for the purpose of scientific research and collection of specimens for zoological gardens, museums and similar institutions.

174. The present system of licensing for the hunting or shooting of game animals is somewhat defective. The licences do not generally specify the species, sex, height, age and other necessary details with regard to the animals to be shot during the period of the licence. The game licences issued in East Africa specify the details mentioned above. Besides, game licences are at present issued somewhat liberally, so that even persons who cannot aim correctly at moving targets succeed in getting shooting licences, with the result that inexpert shooting which only wounds the animal and not kills it, often takes place.

RECOMMENDATION—The Committee, therefore, recommends that utmost caution should be exercised in the issuing of game licences. Licences should be granted only to those persons who have been duly tested and given certificates of proficiency by recognised Rifle Associations, Game Associations, Clubs or similar other recognised institutions. For this purpose Rifle Associations or Game Associations will have to be set up all over the country for imparting training in the handling and using of guns, rifles, etc., in shooting at moving targets, and so on. Such associations already exist in the Nilgiris, the Ralni Hills and at Peermade (Travancore). In order to ensure that only trained sportsmen get shooting licences, it should be made obligatory on the licensing authorities to issue licences only in conjunction with such associations. The Committee further recommends that every licence should be accompanied by a pamphlet on the subject of the proper use of weapons. Such pamphlets may contain a gist of the important information on provisions of the game laws and rules in addition to the information on minimum range for

effective shooting, types of bores of weapons (shot-guns, rifles, etc.) for shooting different classes of wild animals and birds and varieties of cartridges or charges suited for the purpose. The Rifle or Game Associations should ensure that their members (who have received certificates of proficiency and who have been issued game licences) adhere to the principles taught to them during the training period. In order to achieve the objective of preventing indiscriminate shooting, care should be taken to see that restrictions that go with the licence are also observed in cases where permit-free licences are issued to high Government officials, personnel of the Armed Forces, etc. The licences should invariably specify the species, sex, height, age and other necessary details with regard to the animals to be shot during the period of the licence, as that would prevent sportsmen from shooting the females and the young of animals.

Shooting Blocks

175. Under the existing game laws in force in different States, reserved and protected forests have been demarcated into blocks of convenient sizes for shooting purposes. Certain blocks remain open and others are closed for shooting each year. A list of the blocks open for shooting is published every year for the information of sportsmen. For every block there is a limit to the number of animals which may be shot in the block during the year. This limit is fixed after taking into consideration the extent of the estimated stock of game in each block. The laws prohibit the over-shooting of the block limit and once it has been done, the block is closed for shooting for the rest of the year. No hunting is allowed in the shooting blocks without a block licence. The holder of a block licence is required to report the number of animals shot or captured by him to the local Forest Officer generally within a week from the date of his departure from the block.

Administration of Game Laws

176. The game laws are administered by Wild Life Preservation Officers, who have, by now, been appointed in almost all the States. The Wild Life Preservation Officers are in charge of the administration of these laws for the whole State. In the States in which there are no Wild Life Preservation Officers, an official of the Forest Department is designated by the State Government for this purpose. At the district level these laws are enforced by the District Forest Officer or the District Collector. There are Game Wardens in charge of Forest Sub-Divisions and Assistant Game Wardens in-charge of Sub-Ranges and Rounds. In non-forest areas where the Forest Department have no jurisdiction, police officials are entrusted with the duty of enforcing the game laws. In some States even revenue officials are required to administer game laws at lower levels. In addition to the Game Wardens and Assistant Game Wardens, certain persons keenly interested in the preservation and protection of wild life appointed as Honorary Game Wardens.

177. It will appear from the foregoing paragraphs that the existing game laws in the various States embody all that is necessary for the protection of wild life and for preventing the infliction of unnecessary pain or suffering on wild animals and birds during hunting and shooting. Almost all conceivable methods of hunting, shooting and fishing likely to cause suffering to animals have been declared unlawful under the existing laws. If these laws are properly followed, it shall be possible to provide adequate protection to our wild life and eliminate the cruelties to which wild animals and birds are at present being subjected by unregulated hunting and shooting.

RECOMMENDATION—For the strict enforcement of the existing game laws the Committee recommends that the requisite administrative machinery should be set up as early as possible at each level, *i.e.*, State, Division, Sub-Division, etc. and adequate staff should be provided, wherever necessary. Every hunter should be accompanied by an employee of the Forest Department during hunting and shooting. Deterrent penalties should be imposed on those who are found guilty of non-observance of the provisions of the laws. The provisions of the existing game laws should be re-examined and whatever improvements are considered necessary therein should be introduced, so that animal sport which is recognized by some as an old, healthy and useful institution continues but under strict regulations.

Poaching

178. It has been pointed out to the Committee that the incidence of poaching, *i.e.*, hunting and shooting without licence, against Wild Life in our forests has not gone down. Now poaching has become quite common and the activities of poachers have resulted in wanton and indiscriminate destruction of Wild Life. They do not follow the rules of the game and consequently inflict any amount of cruelty on the animals and birds hunted by them. Besides, as they do not take any licence, the Government loses revenue on account of the non-payment of licence fees.

RECOMMENDATION—It is, therefore, recommended that steps should be taken to stop poaching and for this purpose the existing game laws and rules need to be strictly enforced.

Hunting outside Reserved Forests

179. In many States, *e.g.*, Madhya Pradesh, Madhya Bharat and Punjab, rules exist to regulate the shooting of wild animals and birds even outside Reserved Forests. These rules, too, are not effectively administered.

RECOMMENDATION—Arrangements should, therefore, be made to evolve a system of proper enforcement of rules to regulate shooting outside the Reserved Forests rather than prohibit shooting altogether, especially as much of such shooting is resorted to for food as well as for crop protection.

Use of traps and snares

180. The use of traps and snares almost invariably causes much suffering to the captured animal. In some cases such traps and snares, when equipped with springs, may cause permanent injury to animals and birds. It has been pointed out by several witnesses that snaring or trapping is done mostly by the aboriginal and other tribes living in remote areas, for capturing animals and birds primarily for food and that the enforcement of any law prohibiting the use of traps or snares may be extremely difficult.

RECOMMENDATION—The Committee agrees with this view but recommends that the use of any spring trap, the design of which has not been approved by an authority designated by Government, should be made illegal. The authority should approve only such spring traps as will catch and kill wild animals without injuring them or causing them unnecessary suffering. There are provisions under the existing game laws for obtaining trapping licences and these provisions should be strictly enforced. The licence should be granted for a specified area and for a limited period only. The use of

ordinary snares is cruel and it is felt that if an efficient approved trap comes into general use, it may be practicable to prohibit the use of all snares.

Capture and training of elephants

181. The capture and training of elephants in some parts of the country are attended with considerable cruelty. Elephants are captured by the pit, noose or stockade methods.

182. One of the cheapest methods of capturing elephants is by digging pits, covering them with brush wood and allowing an elephant to fall in them. The pit is generally of the size of the elephant and is 6 to 8 feet deep. The bottom of the pit is generally soft. Sometimes due to the carelessness of the workmen who dig the pit a small rock may be projecting at the bottom or the bed may be hard. When the elephant falls into the pit, the worst that may happen is that its ankle may be dislocated or it may rub against a hard substance while falling and there may be a fracture, but such cases of injury are only about 2%. The elephant has freedom to move about its trunk in the pit. It remains in the pit for about 12 to 24 hours before it is taken out of it. All the time the elephant is fed in the pit. This method is preferable to many other methods employed for the capture of wild elephants as it is efficient and involves the minimum amount of cruelty.

183. But the capture of elephants by the stockade method is less cruel. The elephants are driven into the stockade and confined there for a fortnight. By this time they become obedient, and are brought out with the help of two tamed elephants and tied to a tree. A neck rope is put on the elephant but every effort is made to see that the rope is not tied tight round the neck. Complete freedom of movement is assured.

184. Elephants move in herds under a leader or master. Sometimes the master of the herd is a very large and unruly animal and it tries to upset all plans at capturing the elephant by trying to break the stockade and not allowing tamed elephants to enter it. A few persons get on to the gallery around the stockade which is 50 to 60 feet in diameter. They manœuvre to get the master elephant close to the stockade gate and open it a little to allow it to escape. Sometimes the master elephant is so intelligent and wily that it will not escape alone but will stand at the gate to see that all its herd escape first. Thus, a single elephant sometimes upsets the entire plan of capture. In such cases it becomes inevitable to shoot the master elephant. Generally, it is killed with one shot.

185. Noosing is another method of capturing elephants and it is the most difficult method. It requires utmost boldness on the part of the men who take part in the operation. Three persons sit on a big elephant—one to drive the elephant, the other to goad it to run fast and third holding a big noose which is very heavy. When the elephant is driven into a herd, the herd begins to run and the elephant is goaded to run fast with the herd. The men sitting on the elephant try to get to an elephant (of the herd) which is not bigger in size than the one on which they are sitting. As soon as they get to the side of the elephant, the noose is slipped on its trunk when it is raised and it slips on to the neck of the elephant. At the other end the noose is tied to the back of the tamed elephant.

RECOMMENDATION—The Committee recommends stockade method for capturing elephants as the least objectionable. This method should gradually replace the pit method which is employed for capturing elephants

largely in the South. In the meantime, all precautions should be taken to prevent usual risks to the animals involved in the pit method.

186. During the training of wild elephants, specially in Upper India, much suffering is sometimes caused to them by tether wounds and galls developing on the rear legs or on the neck. To prevent suffering resulting from such wounds and galls, it is necessary that adequate veterinary aid should be available on the spot during training.

Use of elephants

187. There was a time when elephants were captured more for show than for any other purpose. Now-a-days they are captured mostly for transporting timber from one place to another. It is roughly estimated that in the whole of India even less than 500 elephants are used for such operations. Mechanical means of transportation of timber were tried in Malabar and tractors were employed for the purpose but the experiment did not succeed. Recourse had, therefore, to be taken to a combination of both the methods, *i.e.*, elephants were used for transporting timber from the spot in the forest where timber was felled to the main road from where it was transported by tractors and lorries. Thus, now-a-days no alternative to the use of elephants for the transport of timber in the forest areas is available. Besides, it is cheaper than any other means of transport.

Elephant shooting rules

188. Some of the States such as Coorg, where elephants are found in large numbers, have rules to regulate their shooting. Under the rules in force in Coorg, a licence for shooting a wild elephant is granted on the payment of a fee of Rs. 200. For killing a 'rogue' elephant, however, no such licence fee is necessary. No licences are issued to persons who do not have fire-arms which are sufficiently powerful to kill an elephant. The bore of the fire-arm to be used for killing an elephant should not be less than .405. The elephant should either be a mature male tusker or rogue. The licensee cannot shoot at a time more than one elephant, the description of which is given in the licence. The licensee shall endeavour, as far as possible, to kill the elephant with a single shot and in case he fails to do so, he should follow the injured elephant and eventually kill it and in so doing he should not wound or kill any other elephant.

189. In the opinion of the Committee the above rules appear to be quite adequate from the point of view of prevention of cruelty.

Choice of arms and ammunition

190. The game laws in some of the States, such as Madras, prescribe the rifles to be used for killing certain animals. For instance, the laws in force in Madras lay down that for shooting a bison only double-barrelled rifle shall be used and the bore shall not be less than .400 in the case of high velocity rifles and .500 in the case of black powder rifles. The idea behind prescribing particular types of rifles, guns or ammunition, for shooting particular species of animals is to ensure that the guns or rifles used are sufficiently powerful to kill them and not only injure them, thereby causing unnecessary suffering to them.

RECOMMENDATION—The Committee recommends that the details regarding the types and bores of guns, rifles, ammunition etc., for shooting

different classes of wild animals and birds and varieties of cartridges or charges suited for the purpose should be specified in the pamphlet to be issued along with the licence, as recommended earlier in para 172.

Crop protection licences

191. Under the Grow-More-Food Campaign in the country, licences are issued by District Officers to agriculturists for the protection of their crops from such pests as monkeys, wild pigs, jackals, Nilgais, etc. These animals are known to cause large-scale destruction of crops standing in the fields. The States affected by this menace have plans for the extermination of Nilgais, monkeys etc. For the elimination of monkeys the State Governments have instituted a system of giving prizes to those who kill them. In the implementation of such schemes they received financial assistance in the form of subsidy from the Central Government during the First Plan period.

192. There is evidence to show that crop protection licences have been largely abused. Most of the cultivators to whom such licences are issued are not necessarily good at shooting, with the result that they sometimes only wound animals and not kill them, thereby causing them great suffering. Apart from the cruelty involved, the unrestricted use of crop protection licences has resulted in the extermination of certain species of animals (for the destruction of which the licences were issued) from certain areas. This makes the problem of wild life preservation a little difficult. The seriousness of the situation has been realised by some of the State Governments who are now trying to find out ways and means to control the activities of the holders of such licences. The Bombay State Wild Life Advisory Board went into this question in detail and recommended that it was not necessary to grant crop protection licences to agriculturists in those districts in which wild life had been exterminated owing to the unrestricted use of such licences. The Board has further recommended that the Collectors of the districts where wild life is no longer a menace to human life or property, should be requested by the Wild Life Preservation Officer that crop protection licences should not be renewed, when they fall due for renewal.

RECOMMENDATION—Endorsing the recommendations of the Bombay State Wild Life Advisory Board, the Committee observes that similar action should be taken by the Wild Life Boards of other States also where depletion of wild life due to unrestricted use of crop protection licences has occurred.

The question of the abuse of crop protection licences may be considered. One suggestion is that instead of issuing licences to individual agriculturists, some kind of a 'Crop protection Corps' may be created for killing animals in the areas where they have become a menace to crops. Such a Corps may be composed preferably of the villagers whose crops it seeks to protect, or, if that is not considered feasible, it may be formed by Government personnel. Such a measure will go a long way towards preventing inexpert and also indiscriminate shooting of animals. Unless such a corps is formed, the issue of licences should not be withheld unreasonably.

Indian Board for Wild Life

193. The problem of protection, conservation and control of wild life has engaged the attention of the Government of India for some time.

India's heritage of wild life is fast becoming a vanishing asset and some of our notable animals such as lion, rhinoceros, tragopan, cheetah, etc., are on the verge of extinction. With a view to preserving the fauna of India and to preventing the extinction of any species and for their protection in balance with natural and human environments, the Government of India constituted an Indian Board for Wild Life in the year 1952. The Board functions under the administrative control of the Ministry of Agriculture. The functions of the Board are:

- (i) to devise ways and means of conservation and control of wild life through coordinated legislative and practical measures with particular reference to seasonal and regional closure and declaration of certain species of animals as protected animals and prevention of indiscriminate killing;
- (ii) to sponsor the setting up of national parks, sanctuaries and zoological gardens;
- (iii) to promote public interest in wild life and the need for its preservation in harmony with natural and human environments;
- (iv) to advise the Government on policy in respect of export of living animals, trophies, skins, furs, feathers and other wild life products; and
- (v) to prevent cruelty to birds and beasts caught alive with or without injury.

194. H.H. the Rajpramukh of Mysore is the Chairman of the Board. The Board consists of 69 members drawn from all walks of life. The Natural History Societies, the zoological gardens, the non-officials and the State Forest Departments are represented on the Board. In its day-to-day administration the Board functions through an Executive Committee. For purposes of wild life management, the country has been divided into four regions and there is an Honorary Regional Secretary for each region. The Executive Committee of the Board is in a position to influence the Central and State Governments and the people as well in regard to the vital need for the preservation of wild life in the country. The Executive Committee is taking all possible steps to arouse public consciousness in the sphere of wild life and the people have begun to realise the importance of preserving wild life.

195. Besides the Executive Committee, the Indian Board for Wild Life has constituted two technical Committees, viz., (1) the Bird Wing, and (2) the Zoo Wing. These Wings were constituted by the Board to deal respectively with the specific problems of birds and zoos in the country.

196. As a result of the activities of the Board the following species which were on the verge of extinction sometime ago have been declared as protected species throughout the country:—

1. Indian Lion
2. Snow Leopard
3. Clouded Leopard
4. Cheetah
5. Rhinoceros (all species)

6. The Indian Wild Ass
7. Kashmir Stag
8. Musk Deer
9. Brow-antlered Deer
10. Pigmy Hog
11. Great Indian Bustard
12. Pink-headed Duck
13. White-winged Wood Duck.

197. As a result of the protective measures taken by the Central and State Governments on the advice of the Indian Board for Wild Life, some of the protected species have begun to increase in numbers. The notable achievement is in the case of Indian Rhino and the Indian Lion. Both these species have increased in number in the recent past.

198. Almost all the States, except U.P., Hyderabad, Jammu & Kashmir, Delhi, Himachal Pradesh and Vindhya Pradesh, have set up corresponding State Wild Life Boards entrusted with the task of preserving the fauna within the State limits.

Game Sanctuaries

199. The preservation and protection of wild life can best be achieved by the establishment of game sanctuaries of such sizes and in such numbers as the needs for preservation, more particularly of the species which have become scarce or which are threatened with extinction, demand. A game sanctuary denotes an area in which killing hunting, shooting or capturing is prohibited, except under proper authority for purposes of investigation or study of wild life, scientific research, photography etc. and the boundaries and character of which are kept as sacrosanct as possible, the area, of course, being accessible to visitors. The Indian Board for Wild Life has a vast programme of setting up game sanctuaries national parks, game preserves and zoological parks in the country. There are at present 69 game sanctuaries in 19 States of India. A list of game sanctuaries in India is enclosed (Appendix XIV). So far as national parks are concerned, there is at present in India only one national park, known as Hailey National Park, situated in Uttar Pradesh. It covers an area of about 120 sq. miles. To conserve wild life the forestry programmes in the Second Five Year Plan include the establishment of 18 national parks and game sanctuaries in India, besides a modern Zoological Park in Delhi.

RECOMMENDATION—The Committee recommends that for the conservation of wild life game sanctuaries and national parks are necessary and should be established all over the country. A few bird sanctuaries already exist and similar more sanctuaries may be established.

The management of a sanctuary does not involve suspension or restriction of the normal forest operations and, as such, it is desirable to set apart a reasonable area within the sanctuary, where such operations are prohibited, so as to ensure the nursing up of wild life, undisturbed by human activity. Such an area (*Sanctum-Sanctorum*) within the sanctuary would also ensure the preservation of plant life, unspoiled and undisturbed.

Since much of the destruction of wild life goes on in the areas continuous to the game sanctuaries and since cattle-borne diseases are spread in the

game sanctuaries by domestic cattle in the surrounding areas, it is necessary to declare *buffer belts* of sufficient widths around all sanctuaries, within which no shooting other than that required for the purposes of legitimate crop protection should be permitted and within which no professional graziers should be allowed to establish their cattle-pens. With a view to preventing spread of cattle-borne diseases, it is necessary to immunize, systematically and periodically, the domestic cattle against the preventable contagious diseases in the neighbourhood of game sanctuaries.

Need for publicity and propaganda

200. One of the functions of the Indian Board for Wild Life and of the Wild Life Boards in the States is to promote public interest in wild life so that people may begin to realise the importance of preserving wild life. At present there is general lack of knowledge in regard to the conservation of Nature and value of wild life. Our children and boys seem to be completely oblivious to the great wealth of wild life that our country possesses. It is absolutely essential that their interest is aroused by propaganda both in schools and colleges and at home by their parents. It is felt that it is well-nigh impossible to achieve the objective of wild life preservation unless effective steps are taken to inculcate the love for animals and birds.

RECOMMENDATION—For this purpose, the Committee recommends that increasing use should be made of documentary films, attractive charts, stories, posters, radio broadcast, press, and such other effective means for publicity and propaganda.

201. The Indian Board for Wild Life intends to bring out pamphlets and bulletins on wild life. The first pamphlet "Why Preserve Wild Life" has been brought out. Two text-books on wild life—one for school children and the other for Administrative and Forest Officers, are also under compilation. Wild life management has been introduced as one of the subjects in the training courses for Administrative, Police and Forest Officers. For the first time a "Wild Life Day" was inaugurated in July, 1955. The Day was celebrated throughout the country with great enthusiasm. In view of the tremendous public response, it has now been decided to celebrate the "Wild Life Week" from 1956 onwards. The first week of October was chosen for the purpose and the week was suitably celebrated during 1956.

CHAPTER VII

PERFORMING ANIMALS

202. Exhibitions of performing animals in circuses are a common source of recreation in all countries. In the U.S.A. and some European countries there are circuses which employ hundreds of animals and organize shows on a much larger scale than circuses in India. Here circuses, big and small, go about from place to place holding shows which attract large crowds. The feats shown by the performing animals amuse and thrill the young and old, the rich and poor alike. It is a comparatively cheap source of entertainment.

Cruelties involved

203. The exhibition of performing animals in circuses has two aspects : the training and the actual performance. Different views have been expressed in the oral as well as written evidence received by the Committee with regard to the cruelties involved in the training of and the actual performances by animals in circuses. So far as the training of performing animals is concerned, few of the witnesses whom the Committee examined had any personal knowledge of the cruelties involved, but the general belief was that the training of animals, particularly wild animals, involved cruelty. In most cases it is the young ones of wild animals which are captured and brought to circuses for training as they can be tamed with much less use of force than the grown-ups. The animal trainer in a circus has to have recourse to a variety of devices, some of which are inconvenient and uncomfortable to animals, in order to train them and make them perform feats he likes them to do. To tame them into obedience, he may even have to inspire fear in the animal under his training.

204. The representatives of some humanitarian organizations in India and in foreign countries have in their written evidence maintained that the performing animals are subjected to all manner of inhumane suffering and torture, physical as well as mental, during training and also actual performance. According to them, the cruelties involved in the training of animals arise out of such practices as withholding food and water for a sufficiently long period, beating animals with whips and canes, giving them electric shocks, using red hot iron rods and making large animals like elephants, lions, bears, etc., perform feats and make such bodily contortions as are most unnatural and consequently distressing to them. In fact, it is more cruel to train a wild animal than a domestic animal. Wild animals, when captured from their wild state, are not easily amenable to control and unusually cruel methods have to be adopted to train them into obedience and discipline. It has been argued by some that no animal can be trained for the stage or for show except by starvation, fear and pain as that is the only way to make animals, particularly the wild ones, perform tricks or actions which are contrary to their natural inclinations or habits. Unavoidable physical and mental torture are involved in the close confinement to which performing animals are subjected when they are not performing, in the continual travelling from place to place which they have to undergo, the necessity to perform at stated times and lastly, their complete divorce from the natural life to which they

are accustomed. Lack of physical exercise in confinement also causes them great suffering.

Utility of animal performances

205. Differences of opinion also exist on the utility of performances by animals in circuses. Some of the witnesses who were examined have held that such performances have only entertainment value, while some others were of the view that they are useful from the point of view of education to those who see them. A group of witnesses have also maintained that animal performances in circuses inspire love for animals in the hearts of the young who see them perform delightful and difficult feats. Some witnesses, on the other hand, have condemned circuses outright and maintained that they do not serve any useful purpose, educative or moral. They doubt even their entertainment value. They argue that children do not learn to love animals by seeing circuses, rather they are repelled by them.

Legislation

206. The U.K. is perhaps the only country in the world where legislation exists to regulate the training and exhibition of performing animals in circuses. According to the U.K. Performing Animals (Regulation) Act, 1925, every person intending to exhibit or train an animal has to get himself registered with a local authority. The local authority maintains a Register in which are entered such particulars as to the animals and the general nature of the performances in which they are to be exhibited or trained, before the person concerned is issued a Certificate of Registration. The Act confers powers on courts to prohibit or restrict the exhibition and training of performing animals, if there is positive evidence that it has been accompanied by cruelty. Besides, any officer of a local authority is empowered to enter and inspect any premises in which any performing animals are being trained, exhibited or kept for training or exhibition and require any person who, he has reason to believe, is a trainer or an exhibitor of performing animals to produce the certificate. Any offence against the Act is punishable with a fine not exceeding £50. A copy of the Act may be seen in Appendix XV.

207. The evidence received by the Committee is largely in favour of allowing circuses, in which wild as well as domestic animals perform, to continue subject to certain regulations so that the cruel part of the training and performances may be eliminated as much as possible.

RECOMMENDATION—The Committee agrees with the popular view and recommends the continuance of circuses of performing animals subject to certain regulations. For this purpose legislation should be undertaken on the lines of the U.K. Act, referred to above, with a view to preventing any cruelties that may be involved in the training of and actual performances by wild as well as domestic animals. The provisions of such a law, when enacted, should be rigorously enforced by local bodies.

Street Performances

208. Besides the circuses which are run on organised lines, there are performances by small animals such as monkeys, dogs, etc., in streets. Indigent people keep such animals and earn their livelihood by showing their performances. The activities of street performers are at present not controlled by any regulation and consequently sometimes cruelties including underfeeding, etc., are committed on the performing animals.

RECOMMENDATION—The Committee, therefore, recommends that street performers should be licensed and adequate supervision and control should be exercised on the proper health and maintenance of their animals by subjecting them to periodical inspections as well as on their methods of training, so that the cruelties inflicted on these animals can be effectively prevented.

Animal and bird fights

209. Animal and bird fights are a common source of recreation, mostly in the villages of India. Such fights cause serious injury to one or both the animals or birds engaged in these fights. Animals which generally take part in such fights are bulls, rams, etc. and birds such as cocks, partridges, etc. The spectators keep on shouting and inciting the participants to go on fighting till they completely exhaust themselves, or injure each other badly, or one of them is killed.

210. With a view to preventing such fights, the Prevention of Cruelty to Animals Act, 1890 provides that "if any person (a) incites an animal to fight, or (b) baits an animal, or (c) aids or abets any such incitement or baiting, he shall be punished with fine which may extend to Rs. 50/-. It shall not, however, be an offence to incite animals to fight if such fighting is not likely to cause injury or suffering to such animals and all reasonable precautions are taken to prevent injury or suffering". There is legislation in some of the foreign countries also for the regulation of cock-fighting. The Cock-Fighting Act, 1952 of the U.K. prohibits the possession by any person of any instrument or appliance designed or adapted for use in connection with the fighting of any domestic fowl and imposes an imprisonment for 3 months or a fine of £25 or both on the offenders. The Act empowers the courts to order the destruction of any such instrument or appliance or to take any other suitable action.

RECOMMENDATION—The Committee feels that fights of animals and birds involve considerable cruelty and recommends that they should be prohibited by law.

CHAPTER VIII

THE KEEPING OR CONFINING OF ANIMALS.

The problem of keeping or confining animals.

211. The problem of keeping or confining animals has many aspects. A visit to any municipal market will show that small animals and fowls meant for sale are kept confined in small, dirty and insanitary receptacles. In towns and cities it is common to see one or more milch animals *e.g.*, cows or buffaloes kept in private dwellings, not for any commercial purpose but for the supply of milk to the family for its own consumption. In big cities like Calcutta, Bombay, Madras, etc., there are 'khatahs' maintained by 'gawalas' (private milk dealers) to cater to the milk requirements of the large population of these places. Then, there are zoological gardens in different parts of the country where both wild and domestic animals and birds are kept or confined in cages or enclosures as exhibits. The Committee has received sufficient evidence and also seen enough municipal markets, 'khatahs' and zoos in the country to come to the conclusion that cruelties of different kinds are inflicted, consciously or unconsciously, on animals and birds kept or confined in both private and public places.

Municipal Markets

212. There are municipal markets in almost all towns and cities of India. The Committee visited the Animal Mart of the Hogg Municipal Market in Calcutta. It is a very big market where animals and birds are kept for sale for different purposes including export. The Animal House of the market contained small animals like monkeys, rabbits, guinea-pigs, etc., which were confined in very small crates, each crate containing a much larger number of animals than it could comfortably accommodate. There were 20 rabbits in one of the cages. The Superintendent in charge of the market told the Committee that there were no municipal regulations fixing the number of animals or birds to be confined in a cage of a particular size. The provision of food and water for the animals in the crates was most inadequate. Birds were also confined in small baskets or in metallic cages, seriously restricting their movements. As there was not ample room for them to move about due to overcrowding in the receptacles, the possibility of their being able to help themselves to food and water, presuming that these were somehow provided, was extremely remote. The Committee saw fowls outside the cages also with their legs tied and the members were told that this was done to prevent them from running away. The cages in which fowls were confined were stacked one on top of the other so that the dirt and filth of one cage fell down on the one below it and so on. The level of sanitation and hygiene in the market was very low, and animals and birds were exposed to all sorts of infectious diseases.

213. The evidence received by the Committee from the superintendents of municipal markets in some other places disclosed similar unsatisfactory conditions in other markets as well. It is felt that animals and birds are subjected to a considerable amount of avoidable suffering under the existing arrangements for keeping or confining them in municipal markets.

RECOMMENDATION—The Committee recommends that the keeping or confining of animals and birds in municipal markets should be regulated by comprehensive rules to be prescribed and enforced by municipalities. It should be made obligatory on everybody to possess a municipal licence before starting the business of keeping animals and birds for commercial purposes. The licence should state clearly the sizes of cages, crates or baskets and the number of animals or birds that can be comfortably accommodated in them. Conditions relating to the provision of adequate space, food and water to these animals and birds during confinement should be particularly stressed in the licence. The floor of the premises should be regularly washed with water so that it may be kept clean. Cages should not be stacked one on top of the other; they should be put side by side, or if they have to be placed one over the other because of lack of space, their bottoms should be so designed that nothing from one cage trickles down to the other below it. The superintendents of municipal markets should be thoroughly conversant with the rules and regulations regarding the proper keeping or confining of animals and birds. The animal section of municipal markets should be under the supervision of a veterinarian whose duty should be to see that the rules and regulations prescribed by the municipalities are strictly observed and the animals are properly cared for. To facilitate proper enforcement of the rules and regulations it is necessary that they should be prominently displayed in local dialects on the entrance to the market.

'Khatals' (Byres for milch animals)

214. The Committee visited some of the big 'khatals' in Calcutta. These 'khatals'* are owned by private milk producers and accommodate cows and buffaloes in large numbers. They supply milk to the city. The animals are housed under most appalling conditions of congestion and filth. To meet the increasing requirements of milk of the steadily growing population of the city large numbers of cattle have had to be imported into Calcutta, while the space in the 'khatals' to accommodate them has remained more or less the same. The cattle are brought mostly from the U.P. and the Punjab. The arrangements for light and ventilation in the 'khatals' are far from satisfactory. There is no arrangement for drainage of the urine of the animals or for the prompt removal of dung and other refuse, with the result that the floor is muddy and slushy. Neither the animals nor the premises in which they were maintained seemed to have been cleaned for a long time. There is no arrangement for maintaining the calves of the animals or for the accommodation of the attendants. Many of the attendants sleep on cots which are suspended from the roofs of the cattle byres. As the 'khatals' are situated in the midst of the city, there are no grazing facilities for the animals. Due to the general shortage of fodder and the anxiety of the milk producers to maximise their profits, the animals are not fed properly. They are not given any exercise in the stables owing to lack of space.

215. The Committee has received evidence about the 'khatals' in other cities also and conclude that the conditions there are equally unsatisfactory. Most of the animals in these 'khatals', when dry, are handed over to the butcher for whatever price they can fetch, as their maintenance becomes uneconomic to the owners. The bulk of the calves die or are starved to death soon after their arrival in the city stables for want of proper attention and adequate nutrition, as the milk producers do not have space to accommodate them and find their maintenance uneconomic. The milk producers, interested

*Khatals—Stables where milch cattle are kept.

as they are in increasing their income from the sale of milk, do not spare even a drop of it for the calves. *Phookas* is commonly practised in these 'khatal's' as that is the only way known to the milk producers to extract milk from cows which without their calves would not give milk easily. Veterinary aid is hardly available to the animals in the 'khatal's', and mortality on account of the extremely insanitary conditions of 'khatal's' and the exposure of animals to all sorts of infectious diseases, is heavy.

Cattle Colonies.

216. The Government is alive to the unsatisfactory conditions under which milch animals are maintained in the stables owned by private milkmen in cities like Calcutta, Bombay, Madras, Delhi, etc. For the maintenance of animals and production of milk under healthy conditions, there are schemes under the Second Five-Year Plan for the removal of cattle from cities and their colonization in nearby rural areas where they can be maintained properly and more economically. A big colony for about 15,000 cattle has already been established at Aarey near Bombay. About 10,000 cattle are still to be removed from the 'khatal's' in Bombay city and for that purpose another colony is proposed to be set up near Bombay. The number of cattle in the 'khatal's' in Calcutta is estimated at 40,000. A colony for about 5,000 cattle is now being set up at the Haringhata Farm and the remaining 35,000 cattle are proposed to be colonised during the Second Five-Year Plan period. It is proposed to establish such colonies near Delhi also to accommodate nearly 4,000 cattle housed at present under insanitary and unhygienic conditions in the stables in Delhi city. The Delhi Milk Supply Scheme aims at settling 175 city milk producers, each owning 10 milch cattle or more, with about 2,000 cattle in milk and their 'followers', dispersed on about 1,225 acres of canal-irrigated land. The cost of setting up this colony is estimated at Rs. 70.68 lakhs. In addition to this scheme, a further provision of Rs. 20 lakhs has also been made for the removal of a part of the remaining cattle of Delhi if it becomes necessary to do so. An *ad hoc* Milk Board has also been constituted for the administration of this scheme. Similar schemes for the colonization of cattle may also be initiated in other large cities like Madras, etc. Thus, nearly 70,000 cattle housed at present in the 'khatal's' in Calcutta, Bombay and Delhi are proposed to be colonised.

RECOMMENDATION—The Committee recommends that great importance should be attached to the establishment of cattle colonies in rural areas at a distance from cities similar to those which have been or are being set up in Bombay, Calcutta and Delhi as that is the only way to rid our cities of the 'khatal's' where cattle are being maintained under unnatural environments and milk is being produced under extremely insanitary and unhygienic conditions. Consistent with the availability of resources highest priority should, therefore, be given to the implementation of cattle colonization schemes so as to cover at least all the big and densely populated cities of India. As it will be a long time before such colonies are set up all over the country, it is necessary that urgent steps should be taken to improve the existing conditions in the city 'khatal's' wherever they cannot be removed immediately. They should be licensed by municipalities and the licence should specify the conditions essential for the maintenance of cattle under healthy conditions such as prevention of over-crowding and congestion, proper sanitation, adequate ventilation and lighting, proper feeding of animals, availability of grazing facilities, regular exercise of

animals, etc. Laws prohibiting *Phooka*, which is a very cruel practise, should be more rigidly enforced and deterrent penalties inflicted on those found practising it. Calves should be properly maintained and dry stock well cared for and prepared for the next lactation. Municipalities should appoint Veterinary Surgeons to render veterinary aid to the animals in the 'khatals', arrange for timely service by approved stud bulls and also see that the conditions specified in the licence are properly observed.

Cattle in Private dwellings

217. Milch cattle like cows and buffaloes are also maintained by people in their dwellings for the supply of milk to their families, but there are no regulations at present to ensure the maintenance of such cattle under healthy conditions. Persons intending to keep cows or buffaloes for milk are only required to obtain the prior permission of the municipality for doing so. Cattle are generally maintained in private houses under unhygienic conditions and are sometimes not properly looked after.

RECOMMENDATION—The Committee recommends that the keeping of cattle in private dwellings should be licensed by municipalities and the conditions specified in the licence for their proper maintenance should be strictly enforced.

Keeping of pets

218. Some people are fond of keeping such animals as dogs, cats, etc. and birds like parrots, etc. as pets in their houses. Pets are usually kept for the love of them. They are also kept for ornamental purposes. Generally, persons who keep pets give good treatment to them as they love them. But sometimes even pet animals are mishandled, though not deliberately, by their owners. It happens largely due to the lack of knowledge on their part regarding the natural habits and the way of life of the pets. Moreover, pets have been seen to suffer at the hands of children who are allowed by their parents to play with them. In the process of playing with or fondling them children sometimes roughly handle them and cause them injury.

219. In the U.K. there are laws to regulate the sale of pets. The Pet Animals Act, 1951 of the U.K. provides that no person shall keep a pet shop except under licence to be issued by a local authority. In issuing the licence for the keeping of a pet shop, the local authority shall ensure that

- (a) animals are at all times kept in accommodation suitable as regards size, temperature, lighting, ventilation and cleanliness;
- (b) animals are adequately supplied with suitable food and drink and (so far as necessary) visited at suitable intervals;
- (c) mammals are not sold at too early an age;
- (d) all reasonable precautions are taken to prevent the spread among animals of infectious diseases; and
- (e) appropriate steps are taken in case of fire or other emergency.

The Act prohibits the selling of animals and pets in any part of a street or public place, except at a stall or barrow in a market. It also prohibits the sale of pets to children under the age of 12 years. The local authority

may authorise any of its officers or any veterinary surgeon to inspect any premises in which animals are kept for sale as pets to see that they do not suffer from any infectious diseases.

220. The Committee feels that the keeping of pets is a healthy pastime and is conducive to the growth of love and companionship between man and animal. If parents and children are educated in the art of keeping pets and the instinct of love for animals is developed in them, they will certainly treat their pets with care and will not inflict any cruelty on them.

RECOMMENDATION—It is, therefore, recommended that the selling as well as the keeping of pets should be licensed by municipalities and the conditions mentioned in the licence should be strictly enforced. The licence should contain provisions regarding the sale of pets more or less similar to those of the U.K. Pet Animals Act. It should be made obligatory on the sellers of pets to supply booklets, along with each sale, to the buyer containing all necessary and useful information about the habits and the way of life of the pets sold. This will go a long way in educating the public, particularly children, in the art of keeping pets and thus reduce the cruelties involved.

Zoo

221. In a zoo wild as well as domestic animals and birds are kept for purposes of education and entertainment. As it is a collection of living objects, one has to be very careful in its management. The task of running a zoo is indeed a difficult one; it has got to be learnt. It is not everybody who can be placed in charge of a zoo. Those who are entrusted with the responsibility of managing a zoo and looking after the animals kept in it, must have the requisite technical knowledge and develop a love for animals. If a zoo is not properly managed and the right type of conditions are not provided for the animals, it may become a prison-house for them and they will be really worthless from the point of view of education, entertainment or recreation.

222. In India, there are 20 zoos a list of which is appended (Appendix XVI). Of these, as many as 12 zoos are situated in the former princely States and the remaining 8 are in prominent cities like Calcutta, Bombay, Nagpur, Delhi, Poona and Ahmedabad. In the olden days the Rulers of the princely States who were interested in wild animals established Zoological Gardens in the capitals of their States.

Cruelties inflicted on animals in zoos

223. The Committee visited some of the zoos, namely, those in Calcutta, Madras, Jaipur and Mysore and found that the conditions under which animals live there were far from satisfactory. Besides, written accounts have been received about the conditions prevailing in the zoos at other places. From the point of view of the prevention of cruelty to animals, the present arrangements for the keeping or confining of animals in our zoos appear to be defective in the following respects:

- (i) The animals under more or less artificial conditions of life. Sufficient attention is not paid to provide in the zoos the natural environments in which the animals are accustomed to live in their natural habitat. Due to lack of space the animals can not move about freely and feel cramped in the small enclosures in which they are confined.

The imposition of artificial conditions on the zoo animals is extremely detrimental to their well-being and causes suffering to them, both physical and mental. Moreover, in the absence of natural conditions naturalists are increasingly unwilling to trust the study of zoo animals with reference to their habits, responses and behaviour.

(ii) Certain animals like gaur, chinkara, many Indian monkeys, cranes, etc., have gregarious instincts and live in herds in their natural habitat. To isolate such animals and confine them alone in zoos is undoubtedly a source of great hardship to them.

(iii) As the zoos in India remain open to the public from morning till evening, the bright glare of the sun causes suffering to such nocturnal animals as palm-civets, porcupines, lorises, owls, etc. Practically all the felines exhibited in zoos are more or less nocturnal. It has been seen that many of them generally retire into shady and dark corners of their enclosures during the day to save themselves from the sun's glare and come out only after sunset. Certain animals like palm-civets, porcupines, lorises and owls are so very nocturnal that they not only dislike sunshine but even the reflected light in the room with the sunshine outside. In many zoos these animals are exhibited with callous disregard of their habits and are confined in cages with no dark or shady corners. Visitors, most of whom know nothing about the habits of different animals kept in zoos, throw stones out of fun at the animals resting in a dark corner of the enclosure and thereby unnecessarily disturb and annoy them.

224. The cruelties to which the animals in our zoos are subjected, as described above, are avoidable and can be greatly reduced by a proper and scientific management of the zoos. A strong plea has been made in the evidence received by the Committee that an attempt should be made to create natural conditions for the animals confined in our zoos and that the zoos in India should be reorganized on the lines of the Whipsnade Zoo in England. The Whipsnade Zoo is an open-air zoo in which an effort has been made to provide more or less natural habitat for the animals.

RECOMMENDATION—The Committee recommends that the zoos in India should be reorganized on scientific lines keeping in view the natural habits of the animals to be confined in them. There should be enough space for the animals to move about in their enclosures. As far as possible, gregarious animals should not be confined alone. Whenever any such animal is procured for exhibition in a zoo, sincere efforts should be made to obtain more than one specimen of the particular species to save it from solitary confinement and consequent suffering. Sometimes in the case of certain rare as well as imported species of animals difficulty may be experienced in obtaining more than one specimen, but where native animals, which are not rare, are concerned, a sustained attempt should be made to allow them to live in herds in zoos. With regard to nocturnal animals, their enclosures should be constructed in such a manner that even during day-time they get sufficient cover from sunshine.

225. Some of the witnesses whom the Committee examined have suggested that as the animals in the zoos are not being maintained properly, the zoos in India should be replaced by National Parks and Game Sanctuaries where animals may be allowed to remain as in their natural habitat. It has been mentioned earlier in the Chapter on 'Animal Sport'

that the Second Five-Year Plan provides for the establishment of 18 National Parks and Game Sanctuaries in India, besides a modern Zoological Park in Delhi. It is, however, felt that as the establishment of Game Sanctuaries and National Parks requires large financial investment and will take a long time, it is, therefore, considered necessary that steps should be taken to reform the existing zoos in the country.

Feeding habits of animals in zoos

226. Lack of adequate knowledge on the part of the zoo authorities in regard to the natural food of zoo animals is also a source of cruelty to them. The animals which do not get their natural food in zoos do not prosper. The Zoo Wing of the Indian Board for Wild Life considered this question and recommended that with a view to improving the defective methods of feeding zoo animals, a thorough study should be made of the feeding habits of different animals by the authorities of zoos and the results of such study made in one zoo should be made known to others.

Feeding of live animals to certain animals

227. The Committee has received evidence that in certain zoos there is the practice of feeding live animals to certain animals. This is perhaps due to the belief that certain live animals constitute the natural food of some wild animals. It has been reported that in the Bombay Zoo, lions, tigers, etc., are thriving even without being fed on live animals.

RECOMMENDATION—The practice of feeding live animals appears to be extremely cruel and it is recommended that it should be avoided as far as possible. Experiments should be made to see whether the animals which normally live on live animals, can sustain themselves only on the meat of those animals killed humanely by man. To the extent that such experiments succeed, the practice of feeding live animals can be gradually abandoned.

Provision of adequate veterinary aid and supervision at zoos

228. At present persons with knowledge of zoology or veterinary science are seldom found in charge of zoos in India, nor are they represented on their managing committees. This is a serious lacuna in the existing set-up of the zoos in India. The need for providing adequate veterinary aid and supervision at the zoos can hardly be over-emphasized in view of the fact that every zoo contains a large variety of animals and birds having different habits and requirements and liable to different diseases.

RECOMMENDATION—The Committee feels that the danger in placing persons with no basic knowledge of the way of life of different animals in a supervisory charge of zoos is great and recommends that the Superintendent or any other officer who may be in charge of a zoo must be a qualified zoologist as he will be well acquainted with physiology and nutritional requirements etc., of animals and birds and the natural way of their life. It is also equally necessary that a veterinarian, whole-time or part-time depending upon the requirements of the zoo, should be associated with the administration of the zoo so that veterinary aid may be available to the animals when needed. It is also recommended that one senior official of the State Animal Husbandry Department should be represented on the Managing Committee of a zoo so that it may be possible

to ensure a proper check and supervision of the working of the veterinarian connected with the zoo, besides providing him with superior guidance and help in time of any emergency *e.g.*, an outbreak of a contagious disease.

229. It may be mentioned here that the Zoo Wing of the Indian Board for Wild Life considered this proposal sometime ago and made a similar recommendation. They further recommend that the veterinary officer to be placed in charge of a zoo should be drawn, as far as possible, from the State Veterinary Service so that he could have proper opportunities of promotion in the general pool. These veterinary officers after a period of 3 to 5 years should be sent back to the general pool and fresh officer from the pool should be drawn so that the whole Veterinary Service could have equal opportunities of learning the treatment of zoo animals. The Committee considers these recommendations helpful and supports them.

Need for explanatory labels

230. It has been observed that in the zoos that the Committee visited, there were plates hung outside the enclosures showing the names of the animals confined in them. No other information is made available to the visitors at present so that the educative purpose, which is a very important purpose of the zoos, is practically lost. In some of the highly developed zoos in the U.S.A., the U.K., etc., there is the system of educating the visitors by means of postcards and small pamphlets. The postcards contain pictures of animals together with a brief description of their habits and requirements. The pamphlets give more detailed information about each animal.

RECOMMENDATION—The Committee recommends that there should be explanatory labels hung outside the enclosures giving all relevant information about the animals which the visitors should know, *i.e.*, the name of the animal, a description of its habits, its food and other requirements and any other special features. In addition to this, instructive postcards and pamphlets should also be supplied to visitors on payment of a nominal price. The sale of such educative literature apart from promoting the educative character of our zoos, will add to their revenues.

Breeding of pet animals in zoos

231. It was observed in certain zoos visited by the Committee that they had arrangements for breeding pet animals for supply to the public. The great advantage of such an arrangement is that animals can be bred under favourable conditions to meet the demand, if any, from the public for such pet animals.

RECOMMENDATION—The Committee recommends that the zoos in India which do not have at present arrangements for the breeding of pet animals, should provide such facilities.

Lack of space and finance

232. The Zoo Administrations in India are handicapped by lack of space and funds in reorganizing the zoos on scientific lines. It is realized that the availability of adequate finance is the *sine qua non* of any effective improvement in the management of zoos. Unless adequate financial aid is assured, it will not be possible to launch a programme of improvement in consonance with the modern conception of a zoo.

RECOMMENDATION—The Committee recommends, therefore, that the Government of India and the State Government should consider the desirability of giving suitable financial assistance to the Zoo Administrations for the development of zoos. In view, however, of the increasing demands on the public exchequer on account of the mounting developmental expenditure under the Five-Year Plans, it is felt that the Governmental assistance alone will not meet fully the financial requirements of the zoos. There is, therefore, the need to tap other available sources of finance. Steps should be taken to popularise zoos and organise public opinion in their favour so that the Zoo Administrations may feel compelled to give sufficient grants to the zoos. For this purpose the Committee recommends the opening of recreation parks, children's corners, elephant rides, etc., in zoos which will make them popular and induce the public to go there to enjoy themselves and understand the value and importance of zoos. As mentioned earlier in para 230 booklets or pamphlets containing information about zoo animals should be prepared for sale for this purpose and it will be an additional source of revenue also.

Zoo Wing of the Indian Board for Wild Life

233. The Government of India is well aware of the need to develop the existing zoological gardens in India on proper and scientific lines. With this end in view the Indian Board for Wild Life constituted a technical wing called the "Zoo Wing" in November, 1955 to study the problems relating to the zoos in India and suggest measures for their all-round development. In its first meeting, held in Mysore on the 15th and 16th May, 1956, the Zoo Wing of the Board considered various proposals for improvement in our zoos including the question of preventing the unintended cruelties to zoo animals such as keeping them under unnatural conditions, confining gregarious animals alone, exposing nocturnal animals to sunshine, etc. It recommended that the Zoo Administrations in India should take measures to provide all possible amenities with a view to preventing such cruelties being inflicted on the zoo animals.

Education and propaganda

234. The need for creating public opinion in favour of zoos with a view to enlisting public support for the improvement and development of zoos in India has been stressed earlier.

RECOMMENDATION—For this purpose it is also necessary that educational films depicting the wild life found in our forests should be prepared and exhibited to the public. In this matter the cooperation of the Ministries of Information and Broadcasting and of Education will have to be secured.

235. The need for publicity and propaganda in order to arouse public interest in the preservation of wild life and the measures taken by the Indian Board for Wild Life to that end have been dealt with in detail in the Chapter on 'Animal Sport'.

CHAPTER IX

TRANSPORT OF ANIMALS

Introduction

236. Within the country animals and birds are transported mostly by rail and road and outside the country by sea and air. The cruelties involved in the transport by sea and air will be discussed in the succeeding Chapter on the 'Export and Import of Animals'. This Chapter is restricted to cruelties inflicted on animals and birds during transport by rail and road.

Transport of animals by rail

237. There are no differences of opinion expressed in the evidence received by the Committee on the question of cruelties perpetrated on animals and birds during transport by rail and road in the country. The Committee has received overwhelming evidence to show that proper facilities are not provided for animals during transport by rail with the result that they are subjected to a great deal of suffering. Animals have to wait at railway stations for hours and hours and sometimes even for days, exposed to the scorching rays of the sun during summer and to rain and cold during the monsoon and winter. Animals like monkeys, rabbits, etc., are confined in cages too small to accommodate them, with inadequate or no provision for food and water in them. The Committee visited the Lucknow railway station and saw that hundreds of monkeys confined in crates made of bamboo were waiting to be despatched to Delhi by the night train. There were 20 to 30 monkeys in each crate which was too small for the number confined and there was absolutely no provision for food and water for them in the crates. On way to the parcel shed, the Committee could hear from a distance the screaming of the monkeys, which was obviously an indication of the discomfort experienced by them. They were scrambling, and in the process were injuring each other, for the grains of gram and barley scattered over the crates as most of them fell outside on the ground. With herculean efforts each could pick up only a few grains through the openings in the crates. This is a daily phenomenon at the Lucknow railway station which is the most important despatching centre for monkeys caught in different parts of Uttar Pradesh. The Committee also saw the loading of these monkeys at the Lucknow railway station and their unloading at the Delhi railway station. The crates containing monkeys were handled by the railway staff so carelessly that the monkeys were shaken violently and they screamed pitifully. Added to it, the monkeys were transported in luggage vans.

238. Besides monkeys, other animals commonly transported by rail in India are cattle, horses, ponies, mules, sheep, goats, camels and elephants. Wild animals of various kinds are also transported for exhibition in zoos or for shows. It has been reported that the treatment given to these animals during transit is no better.

239. The railway wagons in which animals are made to travel are

closed and have very little ventilation or light. The wagons are made of metal which get heated during summer causing great discomfort to the animals loaded in them. Although the rules prescribed by the railways specify the number of different kinds of animals to be loaded in a wagon of particular specifications, the rules are mostly disregarded and many more animals are loaded in a wagon than it can safely and comfortably accommodate. Added to it, animals of different kinds and varying ages are loaded in the same wagon. Due to the unsuitable construction of the wagons used for animal transport in the country, the smaller animals are sometimes crushed or injured by the larger ones during transit. In India we do not yet have the improved types of wagons specially designed for the transport of animals except for horses. Such wagons have the inner sides of the walls lined with asbestos or wood to protect the animals from heat. Their floors are grooved to make them non-slippery. They have suitable internal fittings to save the animals from discomfort during transit.

240. Arrangements for the supply of food and water to the animals during transit are also far from satisfactory. Even at junction stations where goods trains carrying animals stop for a fairly long time, adequate arrangements for feeding and watering do not exist. Attendants do not always accompany animals to see that they are fed and watered at suitable intervals and are properly cared for during the journey, with the result that animals arrive at their destinations in an exhausted and pitiable condition. Some of them actually die before reaching the end of the journey and some even jump out of the wagon and get hurt or killed. Goods trains in which animals are normally transported go slow and consequently the journeys performed by them are long and tiresome. In some cases even several weeks are taken in transit. Particularly on long journeys animals suffer considerably in the absence of adequate arrangements for food and water. Loose shunting of the wagons containing animals is also quite common, causing serious injury and suffering to the animals. At junction stations animal wagons are sometimes detained at a railway siding for days together without proper watering and feeding facilities. This occasionally results in mortality and injury to the animals loaded in the wagons. Such are some of the cruelties which have been brought to the notice of the Committee.

Transport of poultry by rail

241. The unsatisfactory conditions of transport, described above, in the case of animals also obtain in the case of live poultry transported by rail. Fowls, ducks, chickens, etc., are confined in large numbers in baskets too small to accommodate them and transported by rail over long distances. They are stuffed into baskets so that they cannot even move and the baskets are fastened and sealed without any provision for food and water in them. They cannot even put out their heads for a breath of fresh air. The over-crowding of fowls in baskets, lack of provision of food and water for them during transit, lack of ventilation and light in the railway wagons often result in the death of a large number of them before they reach their destination. During the Committee's visit to Bombay, the Bombay Poultry Merchants' and Commission Agents' Association represented that on account of insufficient space in railway wagons, improper loading, bad ventilation of railway bogies, use of iron-sheet wagons, normally long time taken in transit, want of supply of food and water, late arrival of trains, change of climatic conditions, etc., the rate of mortality amongst the poultry during transit was high.

Rules and Regulations

242. It is not as if there are no rules framed under the Indian Railways Act, 1890 providing for some safeguards against the infliction of cruelty on animals transported by rail. The rules prohibit the over-crowding of animals and birds in crates, cages or other receptacles, and provide for the supply of adequate food and water and for the presence of attendants etc. during transit. The Coaching Tariffs No. 12 and 16 and the Goods Tariff No. 29 deal with the transport of animals and birds. The relevant extracts from these rules are quoted below:

(A) Extracts from Coaching Tariff No. 12

LIVE POULTRY—(1) Live poultry will only be accepted for despatch by rail, if packed in cages, basket or hampers and will be charged at full parcel rates at owner's risk. Prepayment of freight is compulsory and the following conditions must be fulfilled:—

(i) The bottom of receptacles must be solid or made of wicker work with interstices sufficiently small to prevent all possibility of the birds' feet passing through them.

(ii) The receptacles should be of standard size viz., three feet diameter and not less than one foot in height and the number of poultry that can be loaded in such a receptacles should not exceed:—

								Contents per recep- tacle
Large Fowls	..	..	..	..	..	..	..	30
Medium Fowls	..	..	..	..	..	..	..	40
Small Fowls	..	..	..	..	..	..	..	60
Large Ducks	..	..	..	..	..	..	..	18
Small Ducks	..	..	..	..	..	..	..	27
Chickens	..	..	..	..	..	..	..	60

Each receptacle should be provided with two cross bars to prevent it being crushed.

(iii) If a basket of a smaller size is tendered or a larger number of poultry than that stated above is loaded in a basket of the standard size, it should be considered as over-crowded and refused.

(iv) The height of receptacles must not be less than one foot.

(v) A sufficient supply of food must be provided for the journey.

(vi) Adequate water receptacles, preferably of some kind of metal, must be securely fastened at opposite sides of the package and filled with water.

(vii) The birds must not be overcrowded.

(B) Extracts from Coaching Tariff No. 16**“Wild monkeys, in cages, in brake vans”**

1. Wild monkeys including sucklings will be carried in strong wooden or bamboo cages only and will be charged at full parcel rates at owner's risk and at railway risk 25 per cent. above the owner's risk rate. Prepayment of freight is compulsory. The following minimum space must be provided in cages for each monkey, the cages must in no case be less than 2 feet in height and must either be fitted with a solid floor or be raised by means of suitable legs or battens, at least 2 inches above the ground.

For small sized monkeys each	.. 1 c.ft.
For medium sized monkeys each	.. 1½ „
For large sized monkeys each	.. 3 „

2. Not more than 25 small, 20 medium and 10 large sized monkeys must be loaded in one cage. To ascertain whether the required cubical space per monkey has been allowed, the following instructions must be followed: Multiply the number of monkeys in the cage by the cubic space allowed for each monkey, the result will give the cubic space necessary for all the monkeys, then measure the cage and ascertain its cubic capacity.

3. Monkeys will not be accepted for despatch unless due provision is made by the sender for a sufficient supply of food and water for the journey. In cases in which the journey is over 12 hours, an attendant must accompany the animals to supply them with their food, etc., *en route*. The attendant must purchase a ticket for his journey. He will be allowed to carry free of charge $\frac{1}{2}$ a seer of ration per monkey per day in addition to his own free allowance of luggage.”

(C) Extracts from Goods Tariff No. 29

While the above-mentioned rules regulate the transport of monkeys and live poultry, the Goods Tariff No. 29 prescribes conditions for the transport of cattle, horses, ponies, donkeys, sheep, goats, pigs, camels, elephants, wild animals and other animals and birds. It provides for the following :—

(a) No consignment of livestock and other animals will be accepted for conveyance unless each wagon-load of animals is accompanied by an attendant or attendants, the fodder to feed animals during the journey and a bucket with which animals can be given water. The attendants, fodder and bucket will be carried free. The number of attendants to accompany animals during transport is determined by the following circumstances :—

- (1) One attendant with each four-wheeled or six-wheeled wagon-load:
- (2) two attendants with—
 - (i) each broad gauge wagon when booked to metre gauge or narrow gauge stations and *via*,
 - (ii) each broad gauge wagon in which the animals loaded have been transhipped from metre or narrow gauge wagons,
 - (iii) each bogie wagon-load.

The attendant or attendants must travel in the same train but not necessarily in the same wagon as the animals. Extra attendants, if required, are allowed to travel at their own expense.

(b) The loading and unloading of live-stock and other animals must be done by the owners in day-light.

(c) Pigs, sheep and goats in small numbers, *i.e.*, if they are less than a wagon-load, are not to be carried by goods trains.

(d) The number of sheep and goats, pigs, horned cattle, horned cattle with calves and sucklings, calves and sucklings, donkeys, horses, ponies and mules to be loaded in a four-wheeled wagon* on broad, metre and narrow gauges is fixed as under :

						Broad Gauge	Meter Gauge	Narrow Gauge
Sheep and goats	..	..	..	..	..	70	50	25
Pigs	..	..	..	..	..	50	35	20
Horned cattle	..	..	..	..	..	10	8	6
Horned cattle with calves and sucklings†				..	..	8	6	4
Calves and sucklings‡		..	..	..	..	20	15	10
Donkeys	..	..	..	..	..	12	10	8
Horses	..	..	..	..	..	8	6	4
Ponies and mules	..	..	..	..	..	10	8	6

The consignors in loading animals are not permitted to exceed the number of animals specified above unless there are special notifications to the contrary.

(e) Camels and elephants are to be carried under special arrangements so that they may not be put to any suffering during transit.

(f) The cages in which wild animals are to be confined during transit must be fitted with strong and suitable handles to enable them to be lifted with safety.

(g) At the written request and risk of owners, horses, ponies and cattle which have travelled over 200 miles, may be unloaded and allowed to break journey for not more than 24 hours at junctions or other first-class stations.

*6-wheeled and bogie wagons will be reckoned as 1-1/2 and two 4-wheeled wagons respectively.

†One suckling or calf not exceeding 3-1/2 feet high at the shoulder is carried free with its parent animal; if exceeding this height, the suckling or calf is treated as a full grown animal and charged accordingly.

‡Calves or sucklings exceeding 3-1/2 feet high at the shoulder in the case of horned cattle and 2-1/2 feet high at the shoulder in the case of other animals are to be treated as full-grown animals and charged accordingly. In assessing vehicle loads in the case of mixed lots of full-grown animals and sucklings and calves not exceeding 3-1/2 or 2-1/2 feet high at the shoulder, as the case may be and no accompanying their parent animals, two such sucklings or calves shall be reckoned as equivalent to one full-grown animal.

(h) Under the rules, the following rations, kit, etc., necessary in the journey are allowed to be carried free, any excess being charged at ordinary rate.

Rations and kit		For each horse or pony	For each head of cattle
Stable kit including a bucket	.. 1	maund.	20 seers.
Grain, etc. .. ..	.. 10	seers for every 100 miles.	5 seers for every 100 miles.
Grass .. ..	.. ..	.. ..	As much as can conveniently be put into the stall.

243. It will be observed that the railway rules, quoted above, provide facilities to animals and birds during their transport by rail with a view to preventing avoidable suffering. In short, they fix the number of animals to be loaded in a wagon and the number of live poultry and small animals to be confined in receptacles of particular sizes, provide for the supply of adequate food and water during transit, for their proper loading and unloading, for the presence of attendants during transit, etc. But, inspite of these rules and regulations the animals are subjected to all kinds of cruelties during transit mainly because these rules are not properly observed either by the railway staff or by the consignors. The Committee feels that there is general apathy on the part of the railway staff to the suffering caused to animals during their confinement in cages, loading and unloading and transit. The consignors, on the other hand, try to maximise their gains by putting the largest possible number of animals and birds in receptacles and loading as many animals as possible in wagon in callous disregard of the regulations prescribed by the railways.

RECOMMENDATION—To ameliorate the existing conditions of transport of animals and birds by rail, the Committee recommends that—

(i) The existing railway regulations regarding the number of animals and birds to be confined in cages or receptacles, the number of animals to be loaded in wagons, provision of food and water and the presence of attendants during transit should be rigidly enforced by the railway authorities and deterrent penalties provided in the rules for those found guilty of contravening them.

(ii) The wagons used for the transport of livestock and poultry should be improved both in regard to ventilation and protection from heat as well as internal fittings as the ordinary type of all-metal wagons (which are primarily designed for carrying goods) are not suitable for the transport of animals in this country, particularly during the hot weather. Their suffering is very great even during long halts in the hot weather. Improved types of wagons especially suited to the needs of animal transport, such as those in use in foreign countries, should be designed with such modifications as may be necessary to suit Indian conditions. To protect animals from heat the inner sides of the metallic walls of the wagons should be lined with asbestos or wood. The floors should be grooved to make them non-slippery. In view of the shortage of steel in India, the possibilities of using wagons made of wood may be examined. The attention of the Minister of Railways may be drawn towards the great need to have special type of wagons for transporting animals in India so that under the

programme for procuring new wagons under the Second Five-year Plan a beginning may be made in this direction.

(iii) There should be adequate arrangements for the provision of food and water for the animals at regular intervals during transit and there should be non-spill troughs in wagons for this purpose. The provision in the Railway rules for the supply of bucket and fodder should be invariably enforced.

(iv) In addition to the watering and feeding arrangements in wagons, similar arrangements should also be made at the junction stations where goods trains carrying animals are likely to stop for a long time and care should be taken to see that the wagons are placed at a convenient siding, from where watering and feeding facilities could easily be provided. All journeys exceeding approximately 48 hours in duration should be broken and animals unloaded to allow them sufficient rest and relief from the stress and strain of a long and continuous journey.

(v) Loose-shunting of wagons containing animals should be strictly prohibited.

(vi) All animals and birds should be transported only by fast passenger trains and not by goods trains, as is done at present. Such animals, when transported by goods trains, deteriorate in quality and are rendered unfit for show purposes due to the long time taken during the journey and some of them even die.

(vii) During loading and unloading animals or the receptacles in which they are confined should be handled carefully so that no injury or undue suffering is caused to them.

(viii) Suitable posters containing the rules and regulations for the transport of animals by rail and emphasizing the need to be kind and considerate to them, should be prominently displayed in the railway parcel and goods offices and on the platform to educate the general public as well as the railway staff who are responsible for enforcing the regulations. The Committee feels that unless a general awareness is created among the public and the railway staff, the rules and regulations regarding the transport of animals will remain mostly on paper and the cruelties involved in the transport will continue unabated.

(ix) In cases of accidents to animals during transport, first aid should be rendered to them immediately and for that purpose requisite facilities should be provided on trains.

(x) The existing railway rules need to be suitably amended by incorporating in them some of the provisions mentioned above.

Transport by road

244. The evidence received by the Committee shows that the present arrangements for the transport of animals by road are also far from satisfactory. Animals are carried generally in vehicles or on foot. Baskets containing birds are carried by men on their heads. Animals are over-loaded in trucks and driven over long distances without adequate arrangements for food, water and rest on the way. Sometimes the trucks

are driven in a such a reckless and rash manner that the animals loaded in them are tossed against each other and against the walls of the trucks which are not padded with the result that they get seriously injured. In the trucks there are no arrangements to protect animals from the sun and the rain. Even during the hottest part of the day animals are not allowed rest.

245. Owing to lack of adequate transport facilities by rail and trucks, animals are often made to walk over long distances sometimes covering even more than a hundred miles. It has been brought to the notice of the Committee that bullocks are made to walk from Nellore to Madras—a distance of nearly 106 miles. During this long and tedious trek animals are not allowed any rest, are not supplied with food and water at regular intervals and so on. On the occasion of weekly markets or cattle fairs in villages or towns animals are brought on foot in large numbers from long distances. Often even in the markets and fairs there are no proper arrangements for feeding and watering the animals. The transport of animals to slaughter-houses from far-off villages also takes place under extremely unsatisfactory conditions and a reference to this has been made in the Chapter on “Slaughter of Animals”.

246. As regards birds, they are over-crowded in baskets and carried on heads without any provision for food and water for long period. It has been seen that people carry fowls by holding their legs with their bodies hanging down in the air.

RECOMMENDATION—To improve the conditions of transport of animals by road, the Committee recommends as under :—

(i) Animals should be transported only in vehicles suitably designed for the purpose.

(ii) Only as many animals should be loaded in a vehicle as can be comfortably accommodated, leaving enough space for their movement. Some arrangements should be made in the vehicles itself for the supply of fodder and water to the animals on the way. The driver of the vehicle, while driving it, should always bear in mind that living objects are loaded in it and that any carelessness on his part can cause them great suffering and harm. While in transit, they should be protected from the rigours of weather.

(iii) Municipalities and District Boards, while planning the construction of roads, should make provision in their plans for the sinking of wells or small tanks by the roadside at distances of say 5 to 10 miles so that animals and also men can get water during the journey. For this purpose, a general instruction should be issued by the Government to the local authorities.

(iv) In the weekly markets or fairs where cattle and other animals are brought in large numbers, the local authority, in whose jurisdiction the markets or fairs are located, should undertake arrangements for the provision of water and for the sale of fodder for animals. In the markets or fairs held in villages, the village panchayats should make similar arrangements. In some cases the grounds on which markets or fairs are held belong to private persons who charge rents from the dealers. In such cases the private land-owners should be made to provide these very elementary facilities for animals in return for the rents charged by them.

(v) As animals are made to walk long distances mostly through villages, the village panchayats should regulate these journeys. The panchayats should frame rules for the provision of all facilities relating to food, water, rest, care etc., to animals during their journey on foot and should enforce them rigidly through their office bearers.

(vi) The carrying of animals and birds in unnatural positions should be prohibited.

(vii) Provision for first-aid should also be carried by trucks transporting animals over long distances.



CHAPTER X

EXPORT AND IMPORT OF ANIMALS

Introduction

247. The various operations connected with the export and import of animals fall into three main stages. The first stage starts with the catching of animals meant for export and their transportation from the place of catching to the port of embarkation. The second stage covers the transport of animals from the port of embarkation to their destination in the importing country and the third stage relates to the uses to which the animals are put in the importing countries. The problem of preventing cruelties involved at these three stages is examined below.

Animals exported

248. The animals and birds exported from India can be classified into four categories, viz. (i) monkeys, (ii) wild animals, (iii) other animals and (iv) birds. Of all the animals exported from India, the monkey is sent out in the largest numbers and, therefore, forms the chief item of export. It has come to be a good earner of foreign exchange for the country besides eliminating a menace to agricultural crops. Monkeys are used by the importing countries mainly for scientific and medical research.

249. The wild animals exported from India are tigers, panthers, leopards, hyenas, wolves, bears, elephants, cranes, baboons, mongooses, lorises, gibbons, civet-cats, reptiles, etc. They are used mostly for exhibition in zoological gardens in foreign countries and also for performances in circuses. It may be mentioned here that the Government of India have banned the export of certain wild animals and birds with effect from the 29th October, 1955 and allowed the export of a few other species of wild animals and birds and also reptiles subject to permits issued by the Secretary-General of the Indian Board for Wild Life, Calcutta.

250. The other animals exported from India include cattle, horses, sheep, goats and other kinds of animals. Animals like sheep and goats are mainly slaughtered for food while there are certain animals which are kept as pets.

251. Birds including parrots, ducks, sparrows, etc., are also exported from India in large numbers and are either kept as caged pets or are used for show and fashion.

Export of monkeys.

252. The species of monkeys largely exported from India is the Rhesus monkeys (*Macaca Mulatta Zimmerman*). This species is also found in Tibet, Burma, Thailand, Indo-China and China. Rhesus monkeys are being exported to nearly 27 countries, of which the important ones are U.S.A., Canada, U.K., West Germany, Australia, Denmark, Austria, Poland and Italy. Among the importing countries, U.S.A. imports the largest number of monkeys every year from India. The following table shows the total number

and value of the monkeys exported from India during the years 1951-52 to 1955-56 and the three months April, May and June of 1956.

Number and value of monkeys exported from India.

Year						Number	Value (000 Rs.)
1951—52 (April-March)	..	..	..	..	..	47,185	3,74
1952—53	..	..	..	..	..	15,753	2,33
1953—54	..	..	..	..	..	16,281	2,97
1954—55	..	..	..	..	..	100,330	1,815
1955—56	..	..	..	..	..	116,296	2,858
1956—57 (April—June, 56)	..	..	..	..	..	56,035	1,802

253. The detailed destination-wise break-up of the above figures may be seen in Appendix XVII. India is not the only source of supply of monkeys to foreign countries, although she is admittedly the largest supplier. Countries like Pakistan, Burma, Thailand, Malaya, Indonesia and Philippines also export monkeys. The average price at which an Indian Rhesus monkey is delivered to the research laboratories in U.S.A. is estimated at about 20 to 22 dollars. It will be seen from the table, given above, that the number of monkeys exported from India has been steadily increasing since 1954-55 to meet the growing demands from the importing countries. The increase in number can be better appreciated when it is realised that the Government of India imposed a ban on the export of monkeys from the 11th March, 1955, except with their previous sanction and exports are permitted only by air. It may be further observed that of the total number exported from India during the years 1951-52 to 1955-56, U.S.A. alone accounted for 80 to 87% of the imports, followed by the U.K. 2 to 7%, Canada 1 to 13%, Germany West 1 to 6% and Australia 1%.

The catching of monkeys and their transportation to the port of embarkation

254. According to the evidence received by the Committee, the different firms engaged in the export of monkeys from India get their supplies of monkeys mainly from U.P. though some also come from parts of Bihar. There are contractors for the supply of monkeys to the exporters. These contractors employ local shikaris or trappers for catching and trapping monkeys in the forests. Monkeys are not caught in cities, although some of the cities in India are infested with them. The Committee was told by a distinguished witness that man himself is largely responsible for making monkeys a nuisance to agriculture and also to his life and property. By reclaiming forest areas for cultivation he has driven monkeys out of their natural abode and the indiscriminate killing by him of leopards and such other wild animals as prey on monkeys has led to the rapid multiplication of their number. In cities public sentiment comes in the way of the killing of monkeys as people do not generally permit killing before their eyes. It is also expensive to catch monkeys in urban areas. Besides, it has been

reported that monkeys captured from cities are more susceptible to diseases than those captured from forests; during their transit to foreign countries they often contract T.B. and other diseases which render them unfit for use. Municipalities and other local bodies do not exercise any control over the catching and trapping operations of shikaries beyond this that they ensure that monkeys are caught only in the areas where they are abundant and are a real menace to agricultural crops and the safety of human beings. The representative of a leading exporting firm of New Delhi was examined on the question of the catching and trapping of monkeys, their transportation to the port of embarkation and the nature of treatment given to them during these operations.

255. So far as the catching and trapping of monkeys is concerned, the local shikaris or trappers catch them in the areas where they are found in large numbers. A net is laid on the ground at night and it is covered with earth, dried leaves etc., in such a clever manner that it is not visible to monkeys and they get easily entrapped. After laying the net the trapper throws grains, sweets and other baits over it and sits at a distance holding a wire in his hand which is joined to the net and is used to close the net when monkeys come into it. He begins to shout so as to invite the attention of the monkeys. About 20 to 25 monkeys are trapped at a time in a net. When monkeys in sufficient number come down to eat the baits lying over the net, the trapper releases the wire and the two sides of the net immediately fold over the monkeys making it impossible for them to escape. The legs of the monkeys get into the meshes of the net, so that in their frantic efforts to extricate themselves from the net, they get more and more entangled and in this process they may sometimes injure themselves. The netted monkeys are brought to the collection centres in the town, where they are put into bamboo crates. Monkeys of the desired size are only retained for despatch and others are let loose. Pregnant monkeys are also returned to the trappers as they are not considered fit for experimentation. The monkeys in crates are brought to the nearest railway station to be transported to Lucknow or Agra railway stations which are the two most important despatching centres. In each crate a large number of monkeys are huddled together and they remain in this over-crowded state for at least 3 to 4 days, which is the time taken by them to reach the Animal Farm in Delhi. There is no satisfactory arrangement for the supply of food and water on the way. The unsatisfactory conditions under which the monkeys are transported from the Lucknow railway station to the Delhi railway station have been described in the preceding Chapter on "Transport of Animals" and measures have been suggested for improving these conditions. At the Delhi station the monkeys are taken over by the exporters and are transported to the Animal Farm in New Delhi. At the Farm they are transferred from bamboo crates into larger and more comfortable holding cages. This cage is of 30 in. x 18 in. and accommodates about 10 monkeys, although it is sufficiently big to hold even 25 small monkeys. The Farm has the capacity to maintain about 2 to 2½ thousand monkeys at a time. There are water troughs for the provision of water and they are fed on gram, sweet potatoes and carrots four times a day. The Committee was told that there is a veterinary doctor at the Farm who examines the monkeys, as soon as they reach the Farm to see whether they are suffering from any disease like T.B. etc. The monkeys are again examined before they are put into the plane. According to the evidence given by the representative of the exporting firm, the exporter pays the animal dealer or the contractor Rs. 12 to 13 for each monkey and the exporter in his turn

charges Rs. 20 to Rs. 25 to the importer. There are firms engaged in the export of monkeys in Delhi and Calcutta only. There are 2 such firms in Delhi and 6 in Calcutta. Calcutta sends out about 10,000 to 12,000 monkeys every month.

256. It may be mentioned here that under the existing regulations governing the export of monkeys which have been in force since the 11th March, 1955 (when the ban was imposed on the export of monkeys from India), the Government of India are trying to regulate the conditions relating the feeding, watering and care of monkeys at the port of embarkation. These regulations are necessary if the hold-up of monkeys at the port for several days is to be avoided.

Undertaking to be given by the exporter

The exporter is required to give the following undertakings:—

“I undertake that the animals, while in my possession or custody, will be given humane treatment which will include proper protection from the elements, adequate supply of food and water and proper handling during loading. The animal will be housed in containers of wood or bamboo, so constructed as to allow passage of air for ventilation through at least 50% of the surface on three separate surfaces. Each container shall be equipped with a water receptacle capable of being refilled during transit. No nails, metallic projections or other sharp edges will be exposed on the interior of such containers. The maximum length of any surface of any cage, crate or container will be 60 linear inches and the minimum height of any such cage or container will be 24 linear inches. Each container will provide a maximum of 1-2/23 cubic feet, 1-9/16 cubic feet and 3½ cubic feet for small, medium and large sized monkeys, contained therein, respectively. No shipping container when loaded will weigh more than 200 lbs., if made of bamboo or 245 lbs., if made of wood. Not more than 23 monkeys will be confined in a single shipping container. Arrangements will also be made to ensure that the animals are examined by a qualified veterinary doctor at the time the consignment is tendered for shipment”.

Transport of monkeys from port of embarkation to the destination in importing country

257. Prior to 1941, there were practically no restrictions on the export of monkeys from India. During the last several years, however, certain restrictions have been imposed on such exports with a view to preventing cruelty to the monkeys while in transit. An account of these restrictions is given below:

(1) Under the Ministry of Finance (Revenue Division) Notification No. 46-C, dated the 26th July, 1941, exports of monkeys by sea or by land were prohibited absolutely during the hot months (also called ‘closed’ season) from the 1st April to the 31st August in each year, while exports were allowed with the permission of the Central Government during the cold months (also called ‘open’ season), from the 1st September in each year to the 31st March of the following year.

(2) Regulation of export during the 'open' season in terms of the above notification was a war-time measure to obviate the possibility of reintroduction of monkeys into India by belligerent countries after infecting them with yellow fever for carrying on bacteriological warfare. Therefore, after the cessation of hostilities this regulation was considered unnecessary. Accordingly, under the Ministry of Finance (Revenue Division) notification No. 13, dated the 7th September, 1946, restrictions on the export of monkeys during the cold months were removed.

(3) It was reported in 1949 that 70% of the monkeys exported to the U.S.A. developed T.B. because of the deplorable conditions that existed in the ships in which the animals travelled. It was feared that conditions would be even worse during the 'closed' season. It was, therefore, decided on humane grounds that during the 'closed' season, monkeys should be allowed to be exported (a) for medical research only and (b) should be carried by air and not by land or sea.

(4) During 1953-54, certain humanitarian institutions were carrying on propaganda against the inhumane treatment meted out to monkeys and had circulated certain pictures in this connection. In the Parliament also questions demanding humane treatment to these animals, were asked. Therefore, for the 1954 'closed' season one more condition was attached to the already existing two for the export of monkeys, namely, that the monkeys should receive humane treatment while in transit. The Ministry of Communications directed the Controllers of Aerodromes and Aerodromes Officers to sound the Airlines that monkeys, when exported by air during the 'closed' season, should be given sufficient moving space and other facilities in transit and also accorded humane treatment.

258. While institutions and individuals interested in the prevention of cruelty to animals have for some time been drawing lurid pictures of the cruelty done to monkeys and have been asking for prohibition of their export, requests for removing restrictions on the export of monkeys during the 'closed' period have also not been wanting. In 1954, a number of representations were received from exporting firms stating that they experienced great difficulty in the transportation of monkeys by air and requested that they should be allowed to export monkeys by sea even during the 'closed' season. The question of export of monkeys throughout the year by land, sea and air was then reconsidered in the Ministry of Food and Agriculture in consultation with the Ministry of Health. It was felt that the prohibition of the export of monkeys by sea during the hot months was based on humane consideration, the object being to avoid inhumane conditions during transit. It was, therefore, decided to allow the existing restrictions to continue.

259. Early in January, 1955, a news item appeared in the Press to the effect that 394 monkeys died of suffocation at the London Airport while in transit from India to the U.S.A. This Ministry made an enquiry into this incident from the High Commissioner of India in U.K. It was found that out of a batch of 1,600 monkeys, 394 were put in an unventilated van and the remaining ones in two ventilated vans; the monkeys put in the unventilated van died of suffocation, not so much because they were in an unventilated van as because of the unusual length of time they were left in it, due to delays in the commencement of loading and due to accidental oversight

on the part of an official who forgot that the monkeys in the unventilated van had been there for a longer period than originally intended.

260. For some time some humanitarian organizations in India have been agitating against the export of monkeys and have also circulated certain pictures depicting the cruel treatment meted out to them in the course of scientific experiments performed on them. This was followed by questions in the Parliament in 1953-54. At the beginning of 1955, the India Society for the Protection of Animals in London intensified its propaganda against the export of monkeys and addressed communications to that effect, *inter alia*, to the President of India. The Prime Minister happened to visit London about the same time. A delegation of some humanitarian organizations and some Parliamentary members waited on him and there was some agitation there about the larger number of monkeys that were being exported from India. The London Airport incident, perhaps, provided further ground for this agitation. It was also alleged that monkeys were being used in connection with experiments relating to atomic energy.

261. Accordingly, the policy regarding the export of monkeys was reconsidered in February-March, 1955 and the export of monkeys was prohibited with effect from the 11th March, 1955 except with the previous sanction of the Government of India. The ban was imposed by an Order under the Imports and Exports (Control) Act, 1947. According to the Order, exports are allowed by the Government only for specified purposes, *i.e.*, for (i) scientific and medical research, and (ii) production of medicinal preparations. Every exporter has to obtain a licence from the Government before he is allowed to export monkeys. The procedure for the grant of licence is that every exporter will have to be approved, in the first instance, by the Central Government before he becomes eligible to apply for a licence for export of monkeys. For inclusion in the list of 'Approved Exporters', the exporter has to fulfil a number of conditions specified by the Government. He has to furnish information, *inter alia*, regarding the end-use, *i.e.*, the purposes for which monkeys are required in the importing country and a certificate from a Registered Veterinary Surgeon to the effect that he (the exporter) maintains a compound in hygienic conditions and that satisfactory provision has been made by him for treating the animals, while in his custody, in a manner consistent with modern humane practices. After he has been declared an 'Approved Exporter' the licence will be issued to him by the Chief Controller of Imports and Exports, New Delhi, subject to such conditions as he may deem fit, including the following:—

1. The animals while in the possession or custody of the exporter will be given humane treatment, which includes proper protection from the elements, adequate supply of food and water and proper handling during loading.
2. The animals are to be exported only by air.
3. Export will be permitted subject to the production of a certificate from a Registered Veterinary Surgeon before the appropriate Customs Officer at the port of shipment that the monkeys intended for export are not sick, diseased, pregnant, injured or maimed.

262. The above procedure has been formulated keeping in view, *inter alia*, the need to conform to minimum standards for according humane treatment to the monkeys to be exported. Any departure from this procedure or supply of false or incorrect information or breach of the under-

takings furnished by the exporter or carrier in this behalf will render the exporter liable to penalties prescribed in the Import and Export (Control) Act, 1947 and to removal from the list of "Approved Exporters". It may be added that along with the application for export licence the exporter has to furnish documents showing a firm contract with an institution or institutions (consignees) in foreign countries recognised as carrying on medical research or manufacturing medicinal preparations for which Rhesus monkeys are required. The Chief Controller of Imports and Exports prepares and publishes, from time to time, lists of such recognised institutions. The application for export licence provides for, *inter alia*, two undertakings : (i) by the exporter and (ii) by the carrier, to ensure humane conditions for monkeys not only at the port of despatch but also during transit. The undertaking by the exporter has been reproduced above in para 254; and the carrier has to give the following undertaking :—

"I declare that during the transit the animals will receive humane treatment; which will include proper protection from the elements, adequate supply of food and water and proper handling during transit. Non-perishable foodstuff ("mixed grains"—maize, gram, groundnuts, etc.) will be provided on the scale $\frac{1}{2}$ lb. per monkey per day, augmented with fresh vegetables. Animals will be accepted for transportation only if housed in containers of the specifications mentioned in the declaration signed by the exporter. The containers will be placed in the vehicle so as to prevent cargo shifting in transit and allow ventilation for each cage. I shall be responsible for the proper loading and unloading of the animals and will not permit any throwing, dropping or unnecessary tripping of cages or any mishandling which might cause harm to or unnecessarily agitate the animals."

263. If the conditions of export licence, mentioned above, are strictly enforced and the undertakings given by the exporter as well as the carrier to the Government are honoured by them, it can be expected that the cruelties to which the monkeys were being subjected in the past at the port of despatch as well as during transit will be greatly reduced. It has been reported to the Committee that the flight from India to the U.K. takes 3 to 4 days and then the transport of the monkeys by road or rail from the airport to their final destination takes one more day. Similarly, the journey by air from India to the U.S.A. takes 5 to 6 days. From the airport in the U.S.A. the monkeys are transported mainly by road to the research laboratories and it is often a journey of several days. So far as the Continent is concerned, the flight from India takes about 5 days. According to the evidence received from the Royal Society for the Prevention of Cruelty to Animals, London, the conditions of transport from India by B.O.A.C., Skyways and Seaboard and Western Aircraft are reasonably good but the facilities for the proper housing, care and protection of monkeys at the intermediate airports, namely, Karachi, Basra, Beirut, Bahrein, Cairo and Tripoli are not so satisfactory. This also applies to Gandar which lies on the route from London to the U.S.A. and Canada. Most of the airports which are halting stations for the planes carrying monkeys do not have modern types of animal hostels like the one which is maintained by the R.S.P.C.A. at the London Airport.

End-use of monkeys

264. Full information regarding the various end-uses of monkeys in the importing countries is not available, although the Committee made a serious

effort to obtain it through our Embassies in the countries concerned. Information was received only from the U.K., West Germany and Australia. The evidence available with the Committee, however, leaves the Committee in no doubt that almost all the monkeys exported from India are used in the importing countries for scientific and medical research in medical institutions and research laboratories. The position, based on this evidence, with regard to the experiments performed on Indian monkeys in some of the foreign countries is stated below.

265. In the U.S.A. almost all the Rhesus monkeys imported from India are utilized for the production of Salk polio vaccine; the kidneys of this species of monkeys have been found to be the best for the purpose, and are removed under the influence of anaesthesia. Before the experiments the monkeys are housed under excellent conditions in air-conditioned rooms and are very well taken care of. There are experienced attendants to look after them and keep them in proper health.

266. According to the evidence given by the Director of Laboratory Animals Bureau, Medical Research Council, London, during his last visit to India, the conditions under which experiments are performed in the U.K. on the animals imported from India are quite satisfactory and the scientists take care to ensure that the minimum possible pain is inflicted on the animals during experimentation. 75% of the Rhesus monkeys imported into the U.K. are used for the production of polio vaccine and the remaining 25% are used for testing the safety and potency of the vaccine. Kidneys of monkeys are removed strictly under anaesthetics for the production of polio vaccine and immediately after the removal of the kidneys the monkeys are killed. For testing the vaccine, the monkeys are first of all given inoculation of the vaccine itself. If it is safe, nothing will happen to the monkeys and if it is not so, they will develop poliomyelitis and as soon as they show signs of paralysis, they are killed. Monkeys which do not develop polio on account of the vaccine, are also eventually killed to see if there is any evidence of damage to the brain. Monkeys other than the Rhesus monkeys are used for other types of medical research experiments relating to respiratory diseases, particularly tuberculosis. The behaviour of tuberculosis in monkeys is similar to the developments that take place in children. Some of the monkeys are also used for nutritional experiments and for dental research. Such monkeys are generally kept for quite a long time. The physiological research, as conducted on animals today in England, is performed with very much more regard to the animals, comfort and freedom from pain than it was done perhaps 50 or 100 years ago and because of the advancing knowledge of man, more and more of such experimentation can be undertaken on animals with less and less pain. It has been mentioned earlier in the Chapter on "Experimentation on Animals" that some of the countries including the U.K. have laws to regulate the experimentation on animals so that the minimum suffering is caused to them. According to the Director, the system of registration of research laboratories, the licensing of experimenters and the system of inspection of experiments by whole-time inspectors prescribed under the U.K. law have improved the position very much and experiments are performed on animals under more or less humane conditions.

267. The Department of Health of the Australian Government has reported that the monkeys imported from India are first kept in Zoological Gardens for exhibition and then transferred to the institutions of medical

and veterinary research where they are used for operations for the removal of kidneys for tissue culture of poliomyelitis virus for the preparation of Salk vaccine, inoculation for detection of poliomyelitis, etc.

In the Zoos, the animals are kept in specially constructed monkey houses, warmth is provided in cold weather and a scientifically compounded diet is fed to them. All monkeys are kept in laboratories under excellent conditions and under the care of experienced personnel. All operations are performed on them under complete anaesthesia in accordance with the standard practices used in Great Britain. When an animal is likely to suffer permanent injury or pain, life is extinguished whilst it is still under anaesthesia. In the case of injections for the diagnosis of poliomyelitis and encephalitis, the animal is humanely killed in the early stage of the manifestation of the symptoms so as not to put it to unnecessary suffering. There are laws in Australia to regulate the use of animals for scientific research so as to prevent all avoidable cruelties to them.

268. In West Germany about 10,000 monkeys imported from India are used for research and nearly 2,000 for culture in connection with the production of polio vaccine. Experiments are done under anaesthesia and the animals are housed and maintained in the institutes under excellent conditions.

269. Besides the four countries mentioned above, the Indian monkeys are exported to a number of other countries. Evidence of the uses to which they are put in those countries is not available. This much, however, is known that of the 27 countries to which India supplies monkeys, laws exist to prevent cruelties during experimentation only in 7 countries, namely, the U.K., West Germany, Denmark, Sweden, Netherlands Australia and British West Indies.

270. Reports received from some humanitarian organizations in the U.S.A. regarding the treatment meted out to monkeys during certain experiments are summarized below. The Committee does not know how far these accounts are objective and cannot vouchsafe for their veracity or authenticity.

According to one humanitarian organization of the U.S.A., only about 11½% of the experiments performed on animals are done under anaesthesia. In certain institutions, this organization claims, conditions of post-operative care are adequate but in others they are not so, with the result that animals are put to protracted and agonizing suffering. According to the reports received from another organization, some of the experiments performed on Indian monkeys are cruel and involve considerable suffering to them. Fatigue is produced by making them swim for 2 to 3 hours until they are exhausted. After removal from the water tank, they exhibit only mild resistance to handling or are so completely exhausted that they are unable to support their own weight and show exaggerated breathing, fail to respond to tactile stimuli and lie prostrate in cages for several minutes. For studying the effect of chilling, monkeys immobilised in strait jackets, are placed in a tank of water kept at a very low temperature. The chilled animals sustain a fall in body temperature and are blue and somewhat prostrated for two or three hours after removal from the cold water. In order to test the effects of flight at distances from the earth's surface at which the force of gravity becomes reduced to zero, monkeys

are rocketed nearly 40 miles into space. One of the surgical experiments on monkeys consists in an attempt to cause the menstrual flow in monkeys to issue from the body by other channels than the normal one. This is achieved by opening the abdomen under anæsthesia, cutting across the neck of the womb and leaving the lower portion of the neck (cervix) in its normal position, transferring the uterus together with the upper portion of the cervix to other situation.

Need for export of monkeys

271. Opinion is divided whether monkeys should be exported from India for the purpose of experimentation abroad. One section hold the view that every encouragement should be given to the export of monkeys from India for the advancement of knowledge and relief of suffering. The results of research conducted on monkeys in one part of the world are available for use for the welfare of man as well as animals all the world over. According to them, as soon as they reach their destinations in foreign countries, the monkeys are kept in air-conditioned rooms in Animal Houses of laboratories and institutions and are looked after very carefully. They are experimented upon, as far as possible under anæsthesia. Their use for research and production of vaccines, sera and other medicines is regulated by laws for the prevention of cruelty in some of the countries importing them. Above all, no experimenter, according to them, will ever wish to inflict any cruelty on the animals deliberately during experimentation. It is also argued that monkeys do not serve any useful purpose in India and in some parts of the country are a regular menace to food crops, necessitating Governmental measures for their destruction in the interest of crop protection. India can ill-afford to lose even a single grain of food as a result of the depredations of monkeys, food which is so scarce in this country and is required to feed her teeming millions. One eminent citizen observed in the course of his oral evidence that he would like to make a present of the monkeys to other countries without any price. The Committee examined the residents of a village near Jaipur in Rajasthan on this particular question. They said, without any dissentient voice, that the monkeys were a great nuisance to them in as much as they wrought large-scale destruction of their crops. They would not kill them with their own hands but would be happy if this nuisance was somehow got rid of. It is, therefore, felt that the protection and preservation of monkeys, which at one time was very strong in villages, is not so strong as before, for the reason stated above. The monkeys in Indian villages are competing with the villagers in the struggle for existence.

272. Another section of witnesses examined by the Committee have advocated a complete ban on the export of monkeys in view of the cruelties involved in their catching, transportation and use in foreign countries. According to them, the only way to eliminate such cruelties is to stop their export altogether. They even urged the imposition of a legal ban, if possible, so that the export could be effectively stopped. They regard the export of monkeys for experimentation as a blot on the fair name of India and therefore sacrilegious. They suggest that the most humane way of getting rid of them is to catch them and leave them in jungles so that they may find a natural home there. On this particular point some experienced persons told the Committee that monkeys which were left in forests, soon returned to the villages and towns as they got better food there without any fear of attack from wild animals.

273. Yet another section have held that the export of monkeys may be allowed provided humane treatment is given to them during transit and they are experimented upon painlessly.

RECOMMENDATION—After considering carefully both sides of the question the Committee makes the following recommendations on the question of the export of monkeys :—

The Committee feels convinced that the end-use of the monkeys exported from India is scientific and medical research and the production of vaccines, sera and other medicines for the relief of the suffering of humanity as well as of animals. While dealing with animal experimentation in an earlier Chapter, it has been recommended that experimentation on animals should be allowed in India under strictly controlled conditions under which pain and suffering resulting from it are reduced to the minimum. The Committee, therefore, does not have any objection to the use of Indian monkeys in foreign countries for the purpose of experimentation provided that the Government is satisfied that it is conducted under conditions similar to those prescribed for India. It is, therefore, recommended that subject to this condition the export of monkeys from India may be allowed.

At present, the number of monkeys exported from India every year is a little over a lakh. There is strong evidence that this number may increase in view of the growing demand for monkeys from foreign countries, which are now actively searching for alternative and more assured sources of their supply. The Committee does not, therefore, rule out the possibility of the number of monkeys exported from India reaching a level, though not in any foreseeable future, which, if not checked, may result in a serious depletion of the stock. Accordingly, it is felt that when that stage comes, the Government of India may re-consider its export policy and take adequate measures to meet the situation.

274. An examination of the existing position makes the Committee feel that at present the Government does not exercise enough control at the different stages of operations connected with the export of monkeys. The exporter is required to possess a licence before he is permitted to deal in the export of monkeys. There are no doubt certain undertakings to be given by the exporter as well as the carrier for humane treatment to monkeys before they are granted permits. But it is felt that in the absence of any effective supervision and inspection by any Government agency the conditions specified in the export licence are not properly observed and the conditions prevailing at the port of despatch as also during transit by air are not likely to improve. The Committee, therefore, attaches great importance to the export of monkeys in all its stages, from their catching to their use in foreign countries, being subjected to a system of comprehensive control so that all suffering is eliminated. At present the export trade in monkeys is in the hands of private traders. They work with a profit motive and in the absence of any licensing or any other control, they are bound to try to maximize their gains without any regard to the suffering to the monkeys. A suggestion was made by the Members of the Committee that the Government should consider taking over the export trade in monkeys.

RECOMMENDATION—The suggestion regarding the taking over of export trade by Government was fully discussed and as it was not found

practicable, it is recommended that the Government should exercise stricter control at the various stages of export trade in monkeys. There should be a comprehensive system of licensing which will require the trapper, the animal dealer (who supplies monkeys to the exporter), the exporter and the carrier to be licensed. In the licence all conditions to ensure humane treatment to monkeys should be specified, *e.g.*, humane catching, use of the right type of net, use of large cages and crates of prescribed measurement, adequate provision of food and water, careful handling of crates, proper facilities during transit by air, etc. Inspectors should be appointed to see that the conditions mentioned in the licence are fully observed and deterrent penalties prescribed for their breach.

275. So far as the control at the other end is concerned, the present arrangement under which monkeys are exported only to recognized institutions in the importing country which enjoy a reputation for conducting research on animals under regulated conditions, may continue. As mentioned earlier, the Government prepares and publishes a list of recognized scientific institutions in importing countries from time to time for the benefit of the approved exporters. The orders from the recognized institutions should be received by the exporting agency appointed by the Government who will pass them on to the Ministry of Commerce and Industry, or whichever is the administering Ministry at the Centre for this purpose. The orders from the recognized institutions must be accompanied by an undertaking, every time the orders are placed, that they will use the monkeys only for scientific and medical research and for the production of vaccine, sera and other medicines and that they will conduct research on the monkeys under strictly controlled conditions and keep them under excellent conditions of housing, feeding and care. The institutions should maintain systematic and regular records of the experiments performed on animals in their laboratories, as is done in the U.K.

RECOMMENDATIONS—(a) To ensure the observance of humane conditions during experimentation on animals the Committee suggests that the Government may utilize such agencies as may be available to them in the countries concerned. These agencies will submit periodical reports to the Government about the conditions of experimentation on animals prevailing in laboratories in these countries.

(b) It is further recommended that Government should not allow the export of animals to any country in respect of which it is satisfied that the conditions prevailing in that country relating to the care of the animals or to the performance of experiments on them do not ensure the elimination of all avoidable suffering.

(c) The catching of monkeys should be done humanely. The net used for the purpose should be so designed that the legs of the monkeys do not get entangled in its meshes. Young and pregnant monkeys, if caught, should be released at once.

(d) During the land transport of monkeys from the place of catching to the port of despatch, often a journey of a few days, proper attention should be paid to their feeding and care. The bamboo crates should be large enough to accommodate them and only as many monkeys should be confined in a crate as can be safely and comfortably put in them. During rail transport, the crates containing monkeys should be carefully handled while loading and unloading. They should be accompanied by attendants.

(e) At the port of despatch the monkeys should be kept in holding cages of adequate size and pattern (different from their land or air travelling cages) as sometimes they have to be detained there for several days. Proper arrangements for feeding, watering and care should be made there. Monkeys should be examined by a Veterinary Surgeon when they reach the port, during their stay there and also before flight.

(f) At the time of flight monkeys should be transferred from the holding cages to the air-travelling cages. The over-all dimensions of the cage at present used by the best shippers are approximately 18 in. (deep) × 22 in. (high) × 36 in. (long); it has duckboard (not wire netting) flooring, wire netting, front and no handles and is fitted with a removable food and water tray and a dropping tray. Such a cage, when empty, weighs about 22 lbs. Each cage should be permanently marked with its maximum permitted load of monkeys. For Rhesus monkeys the approximate loads are—

12	@	4 lbs.	each
11	@	5 lbs.	each
10	@	6 lbs.	each
9	@	7 lbs.	each
8	@	8 lbs.	each

Monkeys over 8 lbs. in weight should be transported in larger cages.

(g) During flight:—

- (i) Monkeys should be kept in a properly ventilated atmosphere, as suffocation has, in the past, proved to be the major cause of mortality both in the aircraft and on the port.
- (ii) Every effort should be made to avoid rapid fluctuations of temperature. Prolonged exposure to the extremes of heat or cold should be avoided.
- (iii) Clean water fit for human consumption should be provided quite frequently. Soaked gram should be supplied to them as feed as this is normally available at all stages of the journey. The cage tray should be filled with food twice in 24 hours.
- (iv) A pair of canvas or leather gauntlets should be provided in each aircraft.
- (v) At least one empty cage should be carried in each aircraft for the isolation of the sick or injured monkeys.
- (vi) At each halt during long journeys where time is allowed for rest, monkeys should be unloaded and given rest.
- (vii) It would be desirable to encourage the construction of animal hostels at all the main airports where the aircraft carrying monkeys generally halts.
- (viii) Any monkeys dying *en route* should be removed from the cage as soon as possible. A bin should be provided on all long flights.

(h) At the destination, the monkeys should be unloaded from the aircraft carefully and should be transported to their final destination, *i.e.*, the laboratory with proper care.

Export of wild animals

276. As stated earlier in para 249, the wild animals exported from India are used mainly for exhibition in zoos or in circuses in foreign countries. In the past there has been an indiscriminate sale and export of wild animals from India. This has resulted in a great depletion of the wild fauna of this country. To preserve the wild life of India and prevent the rare species from extinction, the Government of India prohibited, by three Notifications issued by the Ministry of Finance (Revenue Division) on the 29th October, 1955, the export by sea or by land of certain wild animals and birds, whether dead or alive, or any part thereof, or produce therefrom, or the eggs, egg-sheels, nests or plumage of any such bird. One of the Notifications banned completely the export of certain wild animals such as Lion, Hunting Leopard, Brow Antlered Deer and Pigmy Hog, and certain birds such as Mountain Quail, Jerdonis Courser, Pink-headed Duck and White-Winged Wood Duck. The second Notification prohibited the export of some wild animals*, birds*, and reptiles*, except to a *bona fide* scientific institution and in accordance with a permit issued by the Secretary-General, Indian Board for Wild Life, Calcutta. The third Notification prohibited the export of certain other wild animals†, except under a permit issued by the Secretary-General, I.B.W.L., Calcutta. It may also be mentioned in this connection that there has been a ban ever since September, 1902 on the export of skins and feathers of all birds other than domestic birds, except (a) feathers of ostriches and (b) skins and feathers exported to *bona fide* institutions as specimens illustrative of natural history.

Transport by sea

277. All wild animals and birds are exported by sea. It is during the transport by sea that the element of cruelty comes in. The Committee has received evidence that the conditions of transport of animals by sea are far from satisfactory and involve a good deal of avoidable cruelty. There

*Mammals

1. Caracal
2. Phillip's Rusty spotted Cat
3. Marbled Cat
4. Malabar Civet
5. Lakhimpur Langur
6. Malabar Langur
7. Tranvacore Langur
8. Rhinoceros
9. Nilgiri Langur.

Birds

1. Fina's Baya
2. Aligrettes from species of grets
3. Nests of the Edible-nest Swift
4. Plumes of species of cranes
5. Quills of swans and Geese
6. Feathers of the Vultures, Adjutant storks, Macqueen's Bustard, Peafowl.

Reptiles

1. Skins of Monitor Lizards (Varanus species other than Varanus seluator species), Crocodiles.

†Mammals

1. Clouded Leopard
2. Spotted Lisang
3. Deer Cat
4. South Indian Marten
5. Dugong.
6. Indian Gazette
7. Black Buck
8. Four-horned Antelope
9. Musk from Musk Deer
10. Markhor
11. Urial
12. Indian Swamp Deer
13. Show Leopard
14. Kashmir Stag
15. Horns of all animals of Deer Tribe.

is over-crowding in the pens in which they are confined during the voyage, resulting in injury or unnecessary suffering to them. There is lack of proper ventilation and adequate lighting in the compartments in which they are kept. The supply of food and water is also inadequate. Animals are not accompanied by attendants who can take proper care of them during the voyage.

278. There are no laws or rules in India to regulate the conditions of transport of animals exported by sea. Mention may be made in this connection of the Animals (Sea-Transport) Order of 1930 in force in the U.K. This order seeks to regulate the transport of animals exported from the U.K. by sea. The salient features of this Order are set forth below:—

(1) It prohibits animals from being carried (i) on more than three decks, (ii) on the open main (free-board) decks, (iii) on any deck unless it is completely closed in at the sides and covered with a permanent deck above except during certain specified period, (iv) in tiers one above the other on any deck or on top of any erection on a deck, (v) on any hatch above a compartment where other animals are carried or (vi) in any part of the vessel where they would interfere with the proper management or ventilation of the vessel, or with the efficient working of the boats or the safety of the ship.

(2) It insists that all animals should be carried in pens unless they are confined in a suitable crate, box or other receptacle, which should be so fixed as to prevent its displacement by the sea or the motion of the vessel.

(3) It requires that there should be sufficient space in every pen to enable the animals to have food and rest during the voyage.

(4) It provides for proper ventilation and adequate lighting of the compartment in which animals are kept and for the supply of sufficient quantity of food and water.

(5) It envisages that different classes of animals should be carried in separate pens.

(6) It requires that there should be sufficient number of qualified attendants in addition to the crew to look after the animals during the voyage. Every consignment is required to be under the charge of a responsible foreman and three attendants (including the foreman) are prescribed for every 100 head of cattle.

(7) It insists that there should be adequate arrangements for draining urine and surface water from all parts of the vessel.

(8) In handling animals at the time of embarkation or disembarkation, it requires that they should not be beaten with sticks and a goad of approved pattern should alone be used.

(9) If any animal has a broken limb or is otherwise seriously injured, the Order demands that the Master of the vessel should cause it to be destroyed humanely by an approved killing instrument, unless he is satisfied that it can be kept alive and transported without cruelty.

(10) No animal which cannot be carried without unnecessary suffering owing to infirmity, illness, injury, fatigue or any other cause can, under this Order, be put into the ship. Pregnant animals also are not allowed to be transported. The provisions of this Order are enforced by the inspectors appointed by the concerned Ministry and

the Order requires local authority and all constables and Police Officers to assist these inspectors in its effectual execution.

RECOMMENDATION—The Committee feels that there is need to formulate rules to regulate the conditions of loading and unloading of animals in India and of the transport of animals by sea from India so as to reduce the possibility of any cruelty being inflicted on them. The Sea Transport Order of the U.K. affords some guidance in the matter of transport of animals by sea. The Committee recommends that a suitable legislation may be undertaken respecting the loading and unloading of animals and the transport of animals by our ships. With respect to the transport of animals by foreign ships, steps similar to those suggested in respect of transport in the preceding chapter may be considered.

Export of other animals

279. It has been stated earlier that the animals, other than monkeys and wild animals, exported from India include cattle, horses, sheep, goats and other kinds of animals. The export takes place mainly by sea. A few species of animals and birds are, however, exported by air, although the volume of export by air forms a very small fraction of India's total export trade in living animals. A statement showing the kinds, number and value of animals exported from India by sea during the years 1950 to 1956 (January—June, 1956 only) is appended (Appendix XVIII). The appendix also shows the number and value of animals excluding cattle, horses, monkeys, sheep and goats exported by air during the same period. The export by air is directed mainly to the U.K., Netherlands, Denmark, the U.S.A. and Pakistan. As regards the uses of the animals in the importing countries, it is reported that sheep and goats are mainly slaughtered for food, while there are certain animals which are kept as pets. So far as the element of cruelty is concerned, it arises mostly during the transport of animals by sea.

RECOMMENDATION—The Committee, therefore, recommends that the legislation, suggested above, for wild animals should cover this category of animals also.

Export of birds

280. According to a report received from the R.S.P.C.A., London, the numbers of birds, exported from India, that passed through the London Airport in the years 1953, 1954 and 1955 are indicated below:

Year		Parrots	Ducks	Seafowls	Other birds (Nos)
1953	..	208	35	11	192,229
1954	..	—	—	—	157,489
1955	..	—	—	—	246,887

Some of these birds are despatched to the U.S.A. from London and the remaining are distributed to the U.K. and the various countries on the Continent. As has been stated in para 251 above, the birds are utilized in foreign countries either as pets or for purposes of show and fashion. Some of the birds are dyed to attract customers. One person gave evidence that

Java sparrows are caught in India and exported to London and from there distributed all over the Continent. These birds are kept as caged pets. They are dyed in India to please their overseas customers but this dyeing causes them great suffering and many die in the process. This particular point, however, was controverted by the Superintendent of the Hogg Municipal Market, Calcutta, who observed that dyeing did not cause any cruelty to the birds. The general belief, however, is that dyeing causes some suffering to birds.

281. Although the bulk of the birds are exported from India by sea, certain species are carried by air also.

RECOMMENDATION—The transport of birds by sea also requires regulation to prevent the possibility of any cruelty being inflicted on them and for this purpose the Committee recommends that the legislation, suggested earlier for wild and 'other' animals, should take care of birds also.

Import of animals

282. The foregoing paragraphs deal with the export of animals and birds from India. According to the information available with the Committee, India does not import any animals from outside for the purpose of scientific and medical research. The import is restricted only to the breeding stock, *e.g.*, horses, cattle, sheep and poultry and occasionally a few pigs and goats. All such animals as are imported into India are shipped in accordance with the rules and regulations of the exporting countries.

RECOMMENDATION—On their arrival in India, however, care should be taken to see that the imported animals are carefully unloaded from the ships, are transported safely and comfortably to their final destinations, are kept and maintained under proper conditions and are used humanely.



CHAPTER XI

ANIMAL WELFARE IN GENERAL

283. This chapter deals with the following items :—

- (i) The problem of stray animals;
- (ii) The problem of old and useless animals, Gaushalas, Pinjrapoles and Gosadans;
- (iii) Castration of animals;
- (iv) Specific measures to ameliorate the condition of beasts of burden;
- (v) Re-organization of S.P.A.s in India;
- (vi) Need for humane education; and
- (vii) Animal Welfare Board.

(i) THE PROBLEM OF STRAY ANIMALS

284. The problem of stray animals exists in all parts of India; in some areas it is more acute than in others. Among the stray animals which are usually found, it is the dogs which are found in large numbers. There are stray cattle also but not in such large numbers as stray dogs. In some parts of India even stray donkeys are a source of nuisance. The problem of stray animals has two aspects, namely, how to control their number and secondly, how to eliminate, as far as possible, the cruelties inflicted on them during catching them and during their detention and destruction.

Stray Cattle

285. Stray cattle, when detained in cattle pounds, are generally kept for about three days and if they are not claimed by their owners within that time, they are auctioned. In case owners turn up to claim their animals, they have to pay a fine besides the cost of maintenance of their animals incurred by the cattle pound authorities. There is ample evidence to show that the conditions in which cattle are maintained in cattle pounds are far from satisfactory. Over-crowding is common. The cattle are not fed properly and are mostly exposed to the rigours of weather. No veterinary aid is available to them in the case of sickness or injury. At the time of auction they fall mostly into the hands of butchers who subject them to cruel treatment.

Catching of stray dogs

286. In almost all big towns, municipal laws provide for the licensing of dogs on payment of a fee. The Bombay Municipality charges Rs. 5 for issuing a licence for a dog and the Delhi Municipality charges Rs. 6 for this purpose. The licensed dogs generally put on collars with tokens. Dogs without such collars are taken for unlicensed and rounded up by municipal catchers. Most stray dogs are ownerless in which case the question of having a licence for them does not arise.

287. Stray dogs are caught by municipalities and destroyed. The methods employed for catching them are various. They are caught by the

use of iron tongs. As soon as the tongs grip their necks, they are lifted and put into municipal vans and taken to the municipal kennel for detention before destruction. The Bombay Municipal Corporation employs a different method, known as the "Sack Loop" method. This is a comparatively humane method for catching dogs, and has been recommended by the humanitarian organizations of Bombay for use by other municipalities also. But the persons employed by municipalities for catching dogs are not particularly gentle and often do not hesitate to inflict cruelties on the poor creatures. Besides, the municipal vans are generally not well-ventilated or clean and a number of dogs are crowded in them.

Detention of stray dogs

288. Stray dogs are detained in municipal kennels before they are destroyed. Generally, they are detained for a period of three days and if they are not claimed by their owners within that time, they are put to sleep on the fourth day. The Committee saw the municipal kennel in Madras and found that it was maintained in an unsatisfactory condition. The Committee is informed that this is typical of the condition in which the kennels of many other municipalities are maintained. There were a number of dogs huddled together in the kennel which was unclean. Besides, there was over-crowding and the dogs, as is their nature, kept on fighting among themselves and seriously injured each other. There are no separate kennels for diseased dogs so that good and healthy dogs also catch infection. Adequate veterinary aid is not available. The municipal attendants posted to look after the dogs in the kennels are usually not familiar with municipal regulations with regard to the maintenance of kennels and, consequently, cannot look after the dogs properly. With the approval of the Bombay Municipality, the All-India Animal Welfare Association, Bombay has constructed kennels adjacent to the municipal kennels in Bombay where dogs rescued by the Association are housed, fed, cared for and maintained at their own expense.

Destruction of stray dogs

289. Stray dogs are killed in a variety of ways. The methods most commonly employed are poisoning with strychnine or gassing in a lethal chamber. Poisoning is cruel only if the poison is not administered in a dose sufficient to kill the dog instantaneously. So far as gassing is concerned, the common practice is that a large number of dogs are huddled together in a lethal chamber and the poisonous cyno gas is transmitted into it. It has been reported that dogs die a slow and agonizing death as a result of gassing. The Committee received evidence at Kurnool in Andhra that there is a cement pit in Adoni constructed by the municipality for killing stray dogs. Dogs are collected and about 30 to 50 of them are thrown into that pit which is thereafter sealed and poisonous gas transmitted into it through a hole at the top. The dogs struggle for life for some considerable time and die in agony. Still another method is the clubbing of dogs to death. This is also employed by some municipalities. People are hired for this purpose. This is a cruel method and as it takes place in streets, it is open to objection on this ground also. Shooting is also practised in some cases to kill dogs.

290. The methods, described above, are employed by municipalities in towns. So far as villages are concerned, neither poison nor gas is easily available for killing stray dogs and extremely cruel methods are known to be

practised there for this purpose. Dogs are beaten to death with bamboos. The Committee was told in Patna that in some of the villages of Bihar dogs were given away to scavengers who suspended them by means of a rope tied around their front legs to a tree, the hind legs remaining on the ground and in that position they were beaten to death with bamboos.

291. The Madras and Bombay municipalities have introduced the method of electrocution for killing stray dogs. Perhaps, one or two other municipalities are also trying to introduce this method. This is humane method as it causes instantaneous death. This is, however, in use at present only in the two municipalities mentioned above. Some of the Municipal Health Officers, whom the Committee examined, said that their municipalities were also trying to introduce this method for the destruction of stray dogs but had been prevented from doing so owing to financial difficulties. The use of this method is also limited by the availability of electricity.

292. The Committee visited the lethal chamber of the Madras Municipality and saw dogs being actually electrocuted. The dogs were brought into the chamber in groups of 2 or 3 each so that while one dog was being electrocuted, the others saw it and were naturally terror-stricken. They also saw the carcasses being handled in their presence. The lethal chamber was adjacent to the municipal kennel, so that the dogs in the kennel could easily know the fate in store for them before their turn came. So far as electrocuting is concerned, the element of cruelty comes in only when the electrical apparatus and belt are not in proper working condition or voltage is not adequate so that more than one shock is necessary to kill the dog.

293. In spite of the fact that municipalities all over India, or at least in big towns, are rounding up and killing stray dogs regularly, their number has not diminished. Increasing cases of rabies affecting human beings are reported. According to a report received from Uttar Pradesh, the number of cases brought to the various anti-rabic treatment centres in the State was 36,072 in 1953 as compared with 18,332 in 1950. It has been suggested by some individuals that the killing will not provide a solution to the problem of stray dogs in view of the large numbers involved and the only way to reduce their number is to launch a scheme of mass castration of male dogs.

RECOMMENDATIONS—The Committee however recommends as follows :—

(i) The conditions prevailing in the cattle pounds in which mostly stray cattle are detained, should be improved with regard to housing, feeding, watering, veterinary treatment and protection from exposure to the rigours of weather.

(ii) All municipalities should enforce a system of licensing for dogs, as some of them in big towns are doing at present. The owners of dogs must be made to take municipal licences for their dogs and also put collars with tokens round their necks. The licence fee may be reduced a little to bring it within the means of even poor owners of dogs.

(iii) The method employed for catching stray dogs should be as humane as possible and the catchers should be instructed by municipalities to be careful and considerate in catching them and keeping them in vans. The van should be well-ventilated and over-crowding should not be allowed.

(iv) There should be no over-crowding in kennels. They should be washed regularly and kept clean. Dogs should be fed, watered and

cared for properly during detention. There should be separate kennels for diseased dogs. Adequate veterinary aid should be available to dogs while in detention.

(v) The lethal chamber should always be at a distance from the kennel so that it may be out of sight of the dogs confined in the kennel. Dogs should be brought one by one into lethal chamber and they should not be allowed to see or even smell dead bodies.

(vi) In town where electricity is available, municipalities should make a serious effort to introduce the system of electrocution for killing stray dogs. The electrical apparatus and the belt should always be in proper working order. To enable the municipalities to get over their financial difficulties in the adoption of electrocution, the Government should subsidise them.

(vii) As it will take a long time before electrocution is introduced in all municipalities in India, the least painful of the other methods for killing dogs should be practised, the most important consideration being that death must be instantaneous. In villages active propaganda is necessary to educate villagers in the various methods of killing dogs so that cruelty can be reduced to the minimum.

(viii) Municipal attendants should be instructed to be kind and considerate to animals and look after them carefully. They should be thoroughly conversant with municipal regulations and observe them carefully. The regulations should be prominently displayed at the kennel and at the lethal chamber for the guidance of all.

(ix) The existence of a large population of stray dogs is a serious problem in India, as the incidence of rabies, an incurable disease once symptoms appear, due to dog bites is on the increase. Humane killing of stray dogs is the only conceivable solution to the problem; in a vast country like India castration of dogs has very little chance of success. Free vaccination of dogs by municipalities at the time of licensing is strongly recommended as a measure against the spread of rabies.

(ii) **THE PROBLEM OF OLD AND USELESS ANIMALS AND GAUSHALAS, PINJRAPOLES AND GOSADANS.**

The problem of unproductive and useless cattle

294. The problem of taking proper care of the large number of old, decrepit and useless animals in India is enormous. The Cattle Preservation and Development Committee, appointed in 1947 by the Government of India, estimated the number of unproductive and useless cattle to be as large as 10 per cent. of the total cattle population of the country. Out of this 10 per cent., about 8 per cent. of the cattle are unproductive and 2 per cent. useless. According to these estimates, the number of unproductive and useless cattle in India in the years 1951 and 1956 (when the Livestock Census was conducted in India) works out as follows:—

				(In millions)	
				1955	1956
(i)	Total cattle population	..	..	155	159
(ii)	Unproductive cattle	..	..	12.4	12.7
(iii)	Useless cattle	..	..	3.1	3.2
(iv)	Total unproductive and useless cattle	..	..	15.5	15.9

295. Besides the 16 million cattle there are other animals also like buffaloes, horses, etc. which present a similar problem when they become old, unproductive and useless, although on account of their comparatively smaller numbers, the intensity of their problem is not as great as that of the cattle. Moreover, it is a continuing problem as the number of unproductive and useless animals continues to grow with the increase in the number of livestock. The recent ban on the slaughter of cow and its progeny in the majority of the States will tend to accentuate the problem further.

296. When animals become old, decrepit, infirm and useless, their owners find it uneconomic to maintain them and try to get rid of them in one way or the other. Some of them mostly find their way to slaughter-houses. If rescued by gaushalas and pinjrapoles, they may pass their last days in comparative peace, provided they are looked after properly by these institutions; in case of neglect, they suffer long time and die a slow death. Even useful cows or buffaloes, when they go temporarily dry, are sold to butchers under economic pressure.

Gaushalas and Pinjrapoles

297. The gaushalas and pinjrapoles which exist in or near big towns in different parts of India have been serving the cause of the cow and its progeny for the last 200 years. The cow was and is still considered to be the symbol of nation's economic prosperity. Gaushalas and pinjrapoles, were, therefore, set up mainly to protect the cow from indiscriminate slaughter and to provide homes for shelter to the old and decrepit animals which have out-lived their usefulness in the service of man.

298. In the course of the enquiry, the Committee visited various gaushalas and pinjrapoles at different places. The animals kept in the gaushalas were mostly cows, productive as well as unproductive. The pinjrapoles had, besides cows, other animals like buffaloes, bulls and bullocks in small numbers. In one of the pinjrapoles the Committee saw even horses and dogs. Both gaushalas and pinjrapoles give preference to cattle and, even among cattle, to cows because of strong religious sentiment in the country. In each of these gaushalas and pinjrapoles there were, in addition to old, decrepit and useless animals, some fine breeds of milch animals and also bulls and bullocks. The milk obtained from the cows and buffaloes is marketed and provides a source of income to these institutions, which are generally situated in the vicinity of big towns where feeding and maintenance of cattle are unnecessarily costly. Most of them do not have any lands attached to them for the grazing of cattle or for the raising of fodder crops, and where pastures exist, they are generally insufficient. This stands in the way of feeding the animals properly, as they can hardly afford to procure fodder from the market in adequate quantities at the prevailing high prices. The available fodder, grass etc. is naturally fed first to the good, healthy and milch animals and the old and useless ones get neglected. These institutions do not generally refuse admission to any animals which are offered to them with the result that there is over-crowding and congestion. This causes a great deal of hardship and suffering to the animals. As the good and bad animals mix freely with one another, there being no means of segregating them, promiscuous breeding is practised as a general rule, which results in further increase in the number of inferior cattle. Facilities for veterinary aid for the treatment of sick and diseased animals are lacking or are almost absent. The persons who look after the animals in these

institutions are mostly untrained and cannot take proper care of their breeding, feeding and housing.

299. It may be mentioned that although the majority of these institutions are not being run on satisfactory lines, some of the gaushalas and pinjrapoles which the Committee visited are doing really good work and they deserve encouragement. The persons in charge of these gaushalas and pinjrapoles complained that they were seriously handicapped by lack of finance and land and if such facilities were provided to them, they could show good results.

300. Gaushalas and pinjrapoles are mostly run by private charitable institutions. They are patronised by the rich business communities. Except a few gaushalas and pinjrapoles which have their permanent funds managed by duly constituted trusts, the income of these institutions is derived from 'Dharmada', 'Laga' or 'Gaushala Cess', levied on the sale and purchase of principal commodities in different markets. There are some institutions which do not have the patronage of any business community and thus have to depend entirely on public charities and donations. The income of these institutions is, therefore, not only spasmodic but also inadequate which militates against any scheme of effecting permanent improvement in their management. Moreover, a substantial part of the money deducted as 'Dharmada' is not rightly spent and its actual transfer to the gaushala fund rests entirely at the discretion of the persons who collect it. As a result of their patronage by rich business communities and charitable organisations, these institutions did not have to face any financial difficulty in the past, but with the increasing number of animals to be looked after and the high prices of cattle feeds, their over-all expenses have increased considerably, thus creating financial problems for them.

301. According to an estimate, there are about 3,000 gaushalas and pinjrapoles all over India with a population of over 6 lakh cattle which are being maintained at a cost of over Rs. 6 crores per annum. It has also been estimated that on an average 20% of the cattle in these institutions are of good dairy type, another 20% are good for breeding and further upgrading, though not highly productive, while the remaining 60% are old, infirm and unfit for further breeding. According to this estimate, the total number of old, and useless cattle in these institutions works out to 3.6 lakhs. This estimate was arrived at in the year 1948; it can, therefore, be safely expected that the number must have increased substantially since then.

Gosadans

302. As there is no means at present to segregate the old and useless cattle from the healthy and useful ones in gaushalas and pinjrapoles, the result is that the healthy and good cattle undergo gradual deterioration and tend to become useless in a short time. Moreover, the old and decrepit cattle are also put to a great deal of hardship and suffering, as they receive less attention and are underfed. The Government have, therefore, decided to establish gosadans in different parts of the country with the object of segregating inferior and unproductive cattle in remote forest areas and in order to check their further propagation they are castrated. In the forest areas large quantities of grass grow every year which are not fully utilized. The animals kept in the gosadans can be fed on these fodder resources, part of which would otherwise go waste. At the same time, the cultivated fodder and feeds available in rural and urban areas for which both the useful and

useless cattle compete, will be released for feeding the good and healthy cattle. On an average two acres of land per head of cattle are provided and a gosadan is expected to have 500 to 2,000 cattle depending upon the area of the gosadan.

303. Under the First Five-Year Plan, 25 gosadans were established in different parts of the country which house 8,000 cattle. The Second Five-Year Plan provides for a more ambitious scheme to set up 60 gosadans where about 30,000 unproductive and useless cattle can be housed. In order to place gosadans on a self-supporting basis, it has been decided to attach a Charmalya to each gosadan for the proper utilization of hides, bones, skins and other products of animals which die a natural death.

304. The Committee visited one gosadan in Uttar Pradesh. It had an ideal location on a hill and adjoining to it there were extensive pasture lands where animals could graze. It was found that the actual number of animals in the gosadan was much less than it could accommodate and maintain. The reason for this, as it was pointed out to the Committee, was that the public was still largely unaware of the advantages of sending their animals to gosadans and, consequently was not able to take full advantage of this useful institution. The high cost of transport of animals to the gosadan was also a limiting factor. It was suggested to the Committee that the railway authority may be requested to grant concessions in freight for the transport of animals to gosadans and the transport conditions should be improved.

Development of Gaushalas and Pinjrapoles under the Second Five-Year Plan

305. From the above it will appear that gosadans are meant only for old and useless cattle. Gaushalas and pinjrapoles, on the other hand, are proposed to be utilized only for cattle improvement. It is considered that by better care and management of cattle which are fit for breeding and milk production it is possible not only to increase substantially the output of milk from these institutions but also to convert them into centres for the production of good bulls and bullocks. Under the Second Five-Year Plan it is proposed to select 350 gaushalas out of the total number of 3,000 in the country as centres to be developed for cattle improvement. Only such gaushalas will be selected as can run their own gosadans for housing old and useless cattle or make arrangements with some Government gosadan for this purpose. The gaushalas will send their unserviceable and unproductive cattle to the nearest gosadans. Each gaushala will be provided by the Government with a certain number of animals of improved breed and will be required to secure an equal number from its own resources. About Rs. 80 lakhs have been provided for this scheme. The selected gaushalas and pinjrapoles will be eligible for the following assistance:

(a) The cost of establishing and maintaining the gosadan will be shared between the institutions and the Government on the usual approved basis.

(b) A recurring maintenance grant of Rs. 2,000 per annum will be given to each institution for meeting increased expenditure on the productive herd.

(c) Government will also give a monthly subsidy of Rs. 10 for rearing bull calves for a period of two years after weaning. Improved female calves will also be eligible for this subsidy.

(d) An *ad hoc* non-recurring grant upto Rs. 5,000 will be given for equipment, repairs to and alterations in existing buildings, cattle sheds and paddocks.

(e) The selected institutions will be provided with free veterinary aid.

(f) An annual grant of Rs. 2,000 will be given to each State Federation of Gaushalas and Pinjrapoles for strengthening their organisation and office set up, etc., provided the Federations provide at least Rs. 1,000 from their own resources.

(g) The Central Council of Gosamvardhana will maintain an inspection and advisory organisation and will run training centres for gaushala workers. For these purposes, the Central Government will give an annual grant of Rs. 5.48 lakhs.

Central Council of Gosamvardhana

306. It may be worthwhile mentioning here that a Central Council of Gosamvardhana was constituted in January, 1952 to replace the Central Gaushala Development Board. The Council has a much wider objective for the development of cattle wealth in the country than the Board. The activities of the Board which aimed at the development of gaushalas and pinjrapoles alone, remained restricted to a very small proportion of India's cattle population; the gaushalas and pinjrapoles being located within or in the vicinity of towns, the problem of rural cattle remained almost untouched by the Board. The Council aims at serving the entire cattle population of the country. The functions of the Council include, *inter alia*, the following:

(a) To advise, co-ordinate and assist the State and Regional Gaushala Federations in matters relating to the development of gaushalas and pinjrapoles on proper lines.

(b) To take steps for the prevention and eradication of infectious and contagious diseases affecting the life and health of bovine cattle.

(c) To review the progress of gaushala development schemes from time to time and take steps considered necessary in the light of the experience gained.

(d) To take such measures as may be necessary to prevent the slaughter of useful and productive bovine cattle.

Federation of Gaushalas and Pinjrapoles

307. State Federations of Gaushalas and Pinjrapoles have been formed in 16 States. These Federations act as links between the Government and the individual gaushalas and pinjrapoles and seek to secure co-ordination and co-operation of these institutions as also other public institutions engaged in cattle welfare. They are considered as essential constituents of the Central Council of Gosamvardhana. The Federations require financial assistance for an efficient functioning. As stated above, each State federation receives an annual grant of Rs. 2,000 from the Government for strengthening their organization and office set up, etc., provided the Federations themselves also make a provision of at least Rs. 1,000 per year for this purpose from out of their own resources.

308. It has been pointed out earlier that on the basis of the latest livestock census the number of unproductive and useless cattle is estimated at nearly 16 millions, while the number at present provided for in the gau-shalas and pinjrapoles is only about 6 lakhs which forms hardly 4 per cent. of the total population. There is, therefore, a very strong case for providing homes to the enormous number of old and decrepit cattle which are still without adequate shelter, food and care. The task is stupendous and it is bound to take a long time before it is effectively tackled, in view of the large numbers of cattle involved and the country's limited resources. It is, however, of the utmost importance that the Government effort to establish gosadans under the Second Five-Year Plan should be supplemented by private effort. For this purpose, the Government should give financial assistance to such charitable institutions as come forward to set up gosadans. The lack of suitable sites for locating gosadans has been the main obstacle in making headway in respect of this important scheme. To overcome this difficulty State Governments have been urged to ask their Forest Departments to release suitable lands in forest areas for the location of gosadans. There is evidence that even the few existing gosadans are not being utilized fully. A tremendous educative propaganda is necessary to make the people realise the need for and the benefits of gosadans. The Railways should allow concessions in freight for the transport of old and useless cattle to gosadans.

RECOMMENDATIONS—(a) Under the existing scheme of things, gosadans are meant only for old and useless cattle. The Committee recommends that in order that gosadans may serve an additional useful purpose, all possible means should be explored to see that animals other than cattle such as useless buffaloes, horses, donkeys, etc. are also admitted into gosadans. If, for any reason, this is not possible, institutions may be established where, under Government auspices or privately, useless and decrepit animals other than cattle may be provided shelter. It is further recommended that every encouragement should be given to pinjrapoles which admit all kinds of animals in addition to cattle.

(b) The cattle pounds, maintained by local bodies, should also freely accept stray animals other than cattle for onward transmission to gosadans and other such institutions referred to in (a) above.

(iii) CASTRATION OF ANIMALS

309. Crude methods of castrating animals involving considerable pain and suffering to them are still prevalent in certain rural parts of India. The crudest method is the one in which the testicles of the animal are placed between two stones and crushed without the use of any anæsthetic. The other method is the "Open Method" which involves an operation for the removal of the testicles. This, too, is quite painful. The method of castration now commonly employed by veterinary department is the use of "Burdizzo Castrator". This is a small appliance which crushes the spermatic cord without cutting the skin. As it does not cause much pain, local anæsthetics are not applied while using it. At present its use is confined only to the areas where proper veterinary aid is available. In certain remote areas the villagers may not know that there is an appliance like the "Burdizzo Castrator" which can be made use of in castrating animals with very little pain. It is, therefore, necessary to spread widely the knowledge of this scientific method of castration of animals so that cruelties involved in the

use of crude methods can be eliminated. It is understood that the Animal Husbandry Departments in States are doing their best to popularise the use of Burdizzo Castrator.

RECOMMENDATION—The Committee regards the use of Burdizzo Castrator as a scientific method of castration and recommends that its use be popularised. Active propaganda is necessary among villagers about the advantages of this method. The use of this method will require a large number of veterinary staff as the villagers will be shy of using Burdizzo Castrator themselves on their animals.

(iv) SPECIFIC MEASURES TO AMELIORATE THE CONDITION OF BEASTS OF BURDEN

Construction of sheds and water troughs

310. Complaints have been received at some places visited by the Committee that the number of water troughs built for the use of animals is inadequate and some times these are misused by the public for washing clothes etc.

RECOMMENDATION—It is, therefore, recommended that municipalities and S.P.C.As. should construct sheds at suitable distances where animals can take rest and shelter. Similarly, the provision of water troughs for animals should be made more liberally. Misuse of these troughs should be severely dealt with by the municipalities and S.P.C.As.

Mobile veterinary aid

311. Lack of adequate and timely veterinary aid for the treatment of sick and wounded animals is often a cause of much pain and suffering to them. In towns animals in need of veterinary treatment can easily be taken to the nearest veterinary hospital, but in villages animals suffer from all sorts of diseases and die due to lack of veterinary aid. Some of the States have a system of providing veterinary aid to animals by sending mobile vans into villages. In almost all States which have introduced this system the number of mobile vans is much less than the total requirements of the States. At present, this scheme covers only the villages in the neighbourhood of towns; it does not reach the villages in the interior.

RECOMMENDATION—The Committee recommends that all States should maintain adequate number of mobile vans with all necessary equipments for veterinary treatment so that in due course all the villages in India are covered. The vans should go from door to door and treat sick and wounded animals according to a well planned programme. The staff in the van should, besides treating animals, explain to the villagers the importance of keeping animals in a healthy condition and providing humane treatment to them. S.P.C.As. may also supplement Government efforts by maintaining mobile units for providing veterinary treatment and carrying educative propaganda.

Pneumatic tyre equipment on hire-purchase system.

312. At present most of the cart drivers do not care to use pneumatic tyres in the wheels of their carts, although they know that the use of such tyres will enable their animals to pull heavier loads with less strain. One of the reasons, perhaps, is the cost of the pneumatic tyre.

RECOMMENDATION—The Committee recommends that municipalities should introduce a system of hire-purchase so that even poor cart drivers may be enabled to purchase pneumatic tyres and use them in their carts. The existing municipal bye-laws prescribe different loads for carts with pneumatic tyre equipment and those without it. These bye-laws should be strictly enforced so that overloading does not take place.

Formation of Associations of cartmen and hackney carriage drivers

313. At present, when the animals used in carts or hackney carriages are prosecuted for any offence, *e.g.*, overloading, using an injured or lame animal, etc. under the P.C.A. Act, 1890, they are sent to Civil Veterinary or S.P.C.A. Hospitals for treatment. The owners have to pay the cost of treatment and feeding of their animals in the hospital, apart from the fact that the temporary absence of their animals from work deprives them of their daily earnings.

RECOMMENDATION—To prevent hardship to the poor owners of animals, it is recommended that arrangements should be made whereby it may be possible to provide them with alternative animals when their own animals are prosecuted and detained for treatment in a hospital. For this purpose associations of cartmen as well as hackney carriage drivers should be formed in towns, so that they may be able to loan bullocks or horses on a nominal charge to the members when their animals are receiving treatment in a hospital. The maintaining of a reserve of animals for this purpose will necessarily require some finance. For this purpose, it will be desirable for such associations to work on a co-operative basis.

General Recommendations

314. (i) It is considered that the country carts and horse carriages commonly seen in towns and villages are not suitably designed from the point of view of the comfort and convenience of the animals pulling them. It is, therefore, recommended that local authorities should give thought to this matter and devise improved designs for carts and carriages which may cause least discomfort to the animals pulling them. The detailed specifications of such designs should be laid down in the Municipal bye-laws and should be strictly enforced.

(ii) The shoeing of horses and other draught animals is often done in a careless manner and causes a good deal of pain and suffering to them. It is recommended that persons carrying on the business of a farrier should be suitably trained and they should be licensed and registered by local bodies for which a fee should be levied on them. The licence should specify the manner in which shoeing should be done so that unnecessary pain or suffering is not caused to the animal.

(iii) To detect cases of overloading of animals, Municipal bye-laws should make provision for the erection of weigh-bridges in different parts of the area under their control.

(v) RE-ORGANIZATION OF S.P.C.A.s IN INDIA

315. The defects in the working of the S.P.C.A.s in India have been pointed out in Chapter II. The Committee has come to the conclusion that the S.P.C.A.s rely chiefly on prosecution for the prevention of cruelty. Constructive measures designed to educate public opinion on the need to give

humane treatment to animals, which are so useful to mankind, have received comparatively little attention at the hands of the S.P.C.A.s.

316. As the S.P.C.A.s constitute, besides the police, the main agency to implement the laws for the prevention of cruelty to animals, their reorganization so as to make them effective and useful institutions for the promotion of animal welfare, is of the highest importance. For this purpose, their constitution as well as their method of working needs re-orientation.

RECOMMENDATIONS—(i) It is necessary that the S.P.C.A.s should be manned by sincere and honest persons animated with the desire to promote the welfare of animals. Their constitution should be so amended that at least the Secretary and half the members of the Managing and Executive Committees are nominated by the Government in consultation with the State Animal Husbandry Department. The Secretary should be an official of the Animal Husbandry Department so that he may be able to secure assistance of the Department in running these institutions more efficiently and also keep proper supervision on the treatment and care of animals prosecuted under the Laws enacted for the prevention of cruelty to animals. If this procedure is adopted, the Government can conveniently call for reports periodically to ascertain whether their nominees are really taking interest in the working of these Societies. This will be an effective check against some of the common malpractices of enrolling members of Societies at the last moment and trying to keep up an artificial uninterested majority vote by questionable methods.

(ii) The activities of the S.P.C.A.s should not stop short at the administration of laws for the prevention of cruelty to animals; the positive aspect of the animal welfare programme consisting generally in service to suffering animals on the widest possible scale and the arousing of public conscience should receive progressively greater emphasis. It should be realised that the ultimate solution to the problem of preventing cruelty to animals does not lie in the prosecution and harassment of poor and ignorant people but in showing love, sympathy and kindness to them and making them conscious of their duties towards animals.

(iii) The S.P.C.A.s should organise mobile units for carrying on publicity and propaganda among the masses and also for giving veterinary treatment to the sick and wounded animals on the spot.

(iv) Inspectors or agents of the S.P.C.A.s who detect offences under the Laws for the prevention of cruelty to animals and who have to deal with the sick and wounded animals, must have an elementary knowledge of veterinary science; although they need not necessarily be full-fledged veterinary graduates.

(v) Although some Government help, on a regular and assured basis, is necessary to provide financial stability to the S.P.C.A.s, the present system of determining the quantum of Government grants, made annually to the S.P.C.A.s, on the basis of the amount of court fines realized by them, results in placing disproportionate emphasis on prosecution and should, therefore, be discontinued; the amounts of such grants should be based on the actual requirements of the S.P.C.A.s. No doubt, to a large extent S.P.C.A.s will have to enlist public support as well.

(vi) If the Prevention of Cruelty to Animals Act is extended to cover the entire country and the S.P.C.A.s and recognised humanitarian institutions are armed with powers of detecting offences under the Act, there will

have to be a network of such institutions all over the country. To begin with, efforts should be made to form one S.P.C.A. at each district head-quarter with branches to be established later at the tehsil headquarters, as and when necessary. District Magistrates or Collectors may be entrusted with the responsibility of forming S.P.C.A.s in their respective districts. They will issue necessary instructions to the District Livestock Officers or other departmental officers to take necessary steps in this direction. These officers will have to establish contacts with influential members of the public of the area, interested in humanitarian work, with a view to enlisting public support for the formation of such Societies. To keep a check on the progress of such activities, the district authorities may be required to submit half-yearly reports on the progress made in this behalf to the State Governments till such time as one S.P.C.A. has been formed in each district of the State.

(vi) NEED FOR HUMANE EDUCATION

317. The need for humane education has been stressed by everybody in his oral or written evidence submitted to the Committee. It is felt that in preventing cruelty to animals, legislative measures have to go side by side with widespread humane education; unless this is done, the problem of preventing cruelty to animals and promoting their welfare may remain largely unsolved. Education is the only means by which social conscience can be aroused to the need for treating animals with love, kindness and compassion. Unless man feels that all living beings have sensations of pleasure and pain as he has them and that all life is basically one and should be treated with due consideration, the reforms sought to be introduced by legal or other means will not achieve much.

318. The problem of humane education has two aspects: short-term and long-term. The short-term aspect consists in organising active propaganda among the masses to promote their interest in the protection and preservation of animals in giving them humane treatment. Publicity and propaganda may be undertaken through such means as the press, radio, documentary films, lectures, pamphlets, posters, etc. Documentary films can be a very potent means of educating the public by depicting the cruelties commonly inflicted by man on animals, the usefulness of animals in the life of man and the need for kind and humane treatment to them. The co-operation of the Ministries of Education and of Information and Broadcasting will be required in this matter.

319. It has been mentioned earlier in the chapter on "Animal Sport" that the Indian Board for Wild Life is taking active steps to promote public interest in the preservation of wild animals in the country. For this purpose, the Board brings out pamphlets, compiles text-books on wild life for boys and girls and makes use of other means of publicity and propaganda. The Gosamvardhana Council also does its bit towards animal welfare. The 'Gosamvardhana Week' is celebrated every year in the month of November from Govardhan Puja to Gopashtami. These celebrations are characterised by holding conferences and cattle shows, exhibition of cattle feeds and improved methods of management of cattle through suitable posters, radio talks, demonstrations, films, slides, etc. During the Gosamvardhana Week emphasis is, however, laid only on the cow and its progeny.

RECOMMENDATION—The Committee recommends that an 'Animal Welfare Week' should be observed throughout the country. During this

week emphasis may be laid on the promotion of welfare of animals in general and all available means of publicity and propaganda should be made use of to arouse public consciousness in regard to the need to prevent cruelties to animals and to look after their well-being.

320. The long-term solution of the problem of prevention of cruelty to animals lies in initiating a scheme of imparting humane education to children in all schools from the earliest standard up to the matriculation level. For this purpose, children need not be given lurid pictures of cruelties practised by man on animals. On the other hand, the Committee would advocate the inculcation of positive virtues of being kind, considerate and compassionate to animals so that they develop humane tendencies right from the beginning. Lessons on kindness to animals stressing the advantages of treating them humanely may be included in the text-books prescribed for children up to the matriculation standard. Interesting stories on the subject may also be included in the books. Not less important than education in schools is the proper upbringing of children at home. Parents, too, could play a useful role in this direction. Children have to be taught that animals, too, have life as they have and should be treated with love and care.

RECOMMENDATION—The Committee considers that while no limit can be set to the imparting of humane education, it is recommended that the textual education for this purpose may be continued at least up to the matriculation standard. The Committee wishes to emphasize the vital role of humane education in the promotion of animal welfare and recommends that it should become an integral part of the education of children in schools just like civic duties and hygiene.

(vii) ANIMAL WELFARE BOARD

321. The evidence, oral as well as written, received by the Committee is overwhelmingly in favour of setting up an Animal Welfare Board at the Centre, with its counterparts in States, for giving over-all advice to the Government as well as humanitarian organisations on problems of animal welfare.

RECOMMENDATION—The Committee recommends that the Government of India should take steps to establish an Animal Welfare Board at the Centre as early as possible. After this Board has been formed, States should take similar action. The Committee feels that the problem of prevention of cruelty to animals in particular and of animal welfare in general has not hitherto received the attention that it deserves and the existence of a body which can pay exclusive attention to the consideration of these matters, will make up this defect to a large extent. In the opinion of the Committee the constitution and functions of the proposed Animal Welfare Board may be as follows :—

I. The Animal Welfare Board shall be a statutory body.

II. It shall be a body corporate.

III. Its constitution shall have provision for the following members:—

(i) (a) The Inspector-General of Forests, Government of India, *ex-officio*, or his representative;

- (b) The Animal Husbandry Commissioner, Government of India, *ex-officio*, or his representative;
 - (c) One person to represent veterinary practitioners, nominated by the Central Government;
 - (d) One person nominated by the Central Government on the recommendation of the Indian Medical Association;
 - (e) Four persons nominated by the Central Government to represent respectively the Ministries of Health, Education, Information and Broadcasting and Finance, of the Government of India.
 - (f) Five non-officials nominated by the Central Government to represent persons interested in animal welfare generally;
 - (g) Four Members of Parliament, two of whom shall be by the Lok Sabha and two by the Rajya Sabha.
- (ii) One of the non-official members of the Board shall be nominated by the Central Government to be its Chairman.
 - (iii) The Central Government shall appoint a Secretary to the Board who will be a Government servant.
 - (iv) The Board may appoint other officers and employees for the exercise of its powers and the discharge of its functions.

IV. The funds of the Board shall consist of grants made to it from time to time by the Government and of donations, bequests, gifts and the like made to it by other persons.

V. The functions of the Board shall be:—

- (a) to keep the law in force in India for the prevention of cruelty to animals under constant study and advise the Central Government on the amendments to be undertaken in any such law from time to time;
- (b) to advise the Government on the making of rules under this Act with a view to prevent unnecessary pain or suffering to animals generally, and more particularly when they are being transported from one place to another or when they are used as performing animals or when they are kept in captivity or confinement;
- (c) to advise the Government or any local authority or other person on improvements in the design of vehicles so as to lessen the burden on draught animals;
- (d) to take all such steps as the Board may think fit for ameliorating the condition of beasts of burden by encouraging or providing for the construction of sheds, water-troughs and the like, by providing for veterinary assistance to animals, by supplying animals on hire or otherwise to persons in need of them when their animals are incapacitated for work by reason of illness or for any other reason;
- (e) to advise the Government or any local authority or other person in the design of slaughter-houses or in the maintenance of slaughter-houses or in connection with slaughter of animals

- so that unnecessary pain or suffering, whether physical or mental, is eliminated in the pre-slaughter stages as far as possible, and animals are killed, wherever necessary, in as humane a manner as possible;
- (f) to take all such measures as the Board may think fit, whether by means of propaganda or otherwise, to eliminate the sacrifice of animals in the name of religion or for propitiating any deity;
 - (g) to encourage, by the grant of financial assistance or otherwise, the formation of pinjrapoles, sanctuaries and the like where animals and birds may find a shelter when they have become old and useless or when they are required to be protected from human depredation;
 - (h) to co-operate with, and coordinate the work of, associations or bodies established for the purpose of preventing unnecessary pain or suffering to animals or for the protection of animals and birds;
 - (i) to encourage the formation of Animal Welfare Organisations in municipal and other areas which shall work under the general supervision and guidance of the Board.
 - (j) to impart humane education in relation to animals and to encourage the formation of public opinion against the infliction of unnecessary pain or suffering to animals and for the promotion of animal welfare by means of lectures, books, posters, cinematographic exhibitions and the like;
 - (k) to advise the Government on any matter which may be referred to it for advice in connection with animal welfare or the prevention of unnecessary pain or suffering to animals.

The Prevention of Cruelty to Animals Bill, 1957

322. In order to give effect to all the recommendations in the Report which require legislative implementation, a Bill called "The Prevention of Cruelty to Animals Bill, 1957" has been drafted and is appended (Appendix I). Those portions of the Report for the proper implementation of which provision already exists either in the form of statutory law or in the form of rules, by-laws, etc. have necessarily been kept out of this Bill. Similarly, the recommendations which are advisory in character and which do not require legal support do not find a place in this Bill. Subject thereto, the Bill, if enacted, will implement all such recommendations as would require Central legislation.

323. With respect to the following matters, namely :—

- (a) the weight of loads to be carried or drawn by animals; or
- (b) the intervals within which animals impounded should be fed; or
- (c) the precautions to be taken in the capture of animals and the appliances and devices which may be used therefor; or
- (d) the precautions to be taken in the transport of animals, whether by rail, road, inland waterway, sea or air, and so on;

the Bill would enable the Central Government to make rules as it would be extremely difficult to deal with them in the body of the Bill itself. These

rules may require frequent amendments and powers relating to them have to be flexible. Therefore, it was felt that it would be more appropriate to relegate them to rules. Rules so made will implement the Committee's recommendations with regard to export of animals (more particularly the capture and export of monkeys), the transport of animals from one place to another within India, or the despatch of animals by sea outside India in Indian ships and so on.



CHAPTER XII

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

Chapter 1—Introductory

324. The Committee was constituted on the 16th August, 1954 by a Resolution of the Ministry of Food and Agriculture to go into the question of prevention of cruelty to animals and in particular :—

(i) to examine the present legislation on the subject and the practical and administrative difficulties in the implementation of that legislation;

(ii) to examine corresponding legislation in other civilized countries;

(iii) to examine and clearly define the word “animal” for the purpose of this legislation; and

(iv) having regard to (a) the requirements of scientific research and medical and veterinary treatment, (b) the nutritional and non-vegetarian dietary requirements of the population, (c) the most modern practices for the slaughter of animals, (d) the game and wild life legislation in various civilized countries, (e) the conditions governing import and export of animals, (f) the requirements of scientific and nature study in so far as confinement of animals is concerned, and (g) the requirements of public entertainment in so far as exhibition and performances of animals are concerned, to make such recommendations as are considered necessary.

325. The Committee issued a questionnaire in May, 1955 to more than 1,500 organizations and individuals in India and also to prominent humanitarian organizations and individuals abroad. Besides, it visited 13 places in 11 States to collect oral evidence and examined 310 witnesses and visited institutions which were of interest to it from the point of view of its enquiry.

Chapter II—What is cruelty ?

326. The laws on the prevention of cruelty to animals in India and abroad have not generally defined the term ‘cruelty’ as the cruelties commonly inflicted on animals assume numerous forms. Some cruelties arise from indifference, carelessness, ignorance or callousness on the part of man, others from certain customs and religious beliefs. There are also cruelties arising out of man’s indifference during the times of natural calamities, disease and suffering. In the opinion of the Committee ‘cruelty’ may broadly mean infliction of unnecessary pain or suffering on an animal and it is in this sense that it should be used in a legislation or otherwise.

The problem

327. The first two classes of cruelties, mentioned above, present the major problem. Man has kept many animals for his work without caring whether he has enough to feed them. India’s large and growing livestock

population is seriously competing with her growing human population in the use of land and the available fodder resources are getting gradually depleted. Under-feeding, malnutrition and starvation, thus, constitute a constant and wide-spread form of cruelty. Further, other forms of cruelties like beating, over-working, over-riding, over-driving, etc., are quite common. Also, much avoidable suffering is caused to animals during transport whether it be by rail, road, sea or air, during confinement in municipal markets, zoological gardens and other places, public or private. There is a certain amount of suffering involved during experimentation for purposes of research, during training to perform in circuses, during sacrifice before deities, during slaughter by the existing methods and so on. Certain practices such as the catching and destruction of stray dogs, the castration of animals in villages, the disposal of unserviceable and uneconomic animals and '*phooka*' are also attended with cruelty. Working animals which are found in large numbers in India are often ill-treated and milch cattle, on going dry, often find their way to slaughter-houses.

328. Measures have been taken from time to time for the prevention of cruelty to animals but they have not gone far enough. The laws enacted for the purpose by the Government have not been properly implemented and the efforts of S.P.C.A.s and other humanitarian institutions have borne little fruits due largely to lack of public sympathy.

Growth of legislation

329. The need for a law to prevent cruelty to animals was felt nearly a hundred years ago and the first Act seeking to prevent cruelties in the station of Howrah was enacted in 1857. Many laws on the subject were passed both by the Central and State Governments in the years that followed, but they covered only certain specified acts of cruelty and left out the more serious and common ones. The Prevention of Cruelty to Animals Act, 1890 marked the first attempt to tackle the problem in a comprehensive manner. But even this Act suffers from several deficiencies. It does not cover all forms of cruelties and has a restricted application in so far as it leaves out the villages altogether.

330. The gaps in the Central law led certain States to make their own laws and rules to provide protection to animals during hunting and shooting, slaughter for food and sacrifice to propitiate deities. Besides, Municipal Acts empower Municipalities to frame bye-laws to regulate slaughter of animals, their use in pulling carts and carriages, etc.

331. In actual practice, however, these laws and rules have largely failed to reduce the incidence of cruelty on animals because of their half-hearted implementation. The police are generally indifferent to the sufferings of animals, even if they were not indifferent, they would have little time, in the midst of their multifarious duties, to attend to this humanitarian work. S.P.C.A.s which are armed with police powers for the detection of cruelty to animals, confine their activities largely to prosecution, to the neglect of the constructive part of their work. This has undermined public sympathy and support for them.

Chapter III—Experimentation on animals

332. Experiments are performed on animals in medical research institutions in India with the twin purpose of advancing human knowledge in the realm of science and of producing medicines, sera and vaccines, drugs,

etc., for the treatment of human as well as animal diseases. Experiments take the form of operations or injections. All operations involving pain and suffering to animals are performed mostly under the influence of anæsthetics. About 90% of the animals anæsthetized for experimentation are killed before recovering consciousness and those that are allowed to recover consciousness are looked after carefully.

333. In India, there are no laws to regulate the use of animals for experimentation to prevent avoidable suffering to them, as there are in certain other countries like the U.K., Germany, Australia, British West-Indies etc. Most of the countries having such legislation are far ahead of India in the field of scientific and medical research.

334. The Committee is convinced that animal experimentation is necessary for the advancement of science and for alleviating the sufferings of both man and animal. It, however, favours legislation, flexible in character, for the regulation of animal experimentation in India.

RECOMMENDATION—The legislation to be undertaken may envisage the constitution of a Committee of fifteen persons. The Central Government will nominate (i) two representatives of each of the three Councils, viz., the Indian Council of Medical Research, the Indian Council of Agricultural Research and the Council of Scientific and Industrial Research, (ii) two persons to represent Universities in India and (iii) five non-officials actively interested in animal welfare work. The remaining two persons will be Members of the Parliament of India. The Committee shall lay down rules, which shall be binding on all persons and institutions carrying on experiments on animals, so as to ensure that :—

(a) experiments are performed in any institution on the responsibility of the person in charge of the institution, and if they are performed outside an institution, the individuals performing them are fully qualified and assume full responsibility therefor;

(b) as far as possible experiments involving operations are performed under the influence of some anæsthetic of sufficient power to prevent the animal feeling pain;

(c) no experiments are conducted :

(i) as an illustration of lectures, except when it is absolutely necessary, and

(ii) merely for attaining manual skill;

(d) experiments on larger animals are avoided when it is possible to achieve the same results by experimenting upon small laboratory animals like guinea-pigs, rabbits, rats etc.;

(e) animals are properly looked after both before and after experiments; and

(f) suitable records are maintained about the experiments performed.

The Committee shall have powers to inspect any institution engaged on animal experimentation to satisfy itself that its rules are being properly observed. Any violation of the rules shall render punishable the person in charge of the institution in which the breach has occurred or any other person (if the breach has occurred outside an institution), the punishment being a fine extending to two hundred rupees.

Procurement, housing, feeding and care of experimental animal

335. Proper attention has not been given in India to the housing, feeding and care of experimental animals. This results in much avoidable suffering to them.

RECOMMENDATION—The housing as well as breeding of experimental animals should be done, as far as possible, under natural conditions. Proper care should be observed in the disposal of animals after experimentation.

Alternatives to animal experimentation

336. The systems of medicine other than the modern system, viz., Homœopathy, Ayurveda, Unani, etc. do not generally rely on the use of live animals in the treatment of diseases. Scientists are also trying to find out suitable alternatives to animal experimentation as the use of animals makes it difficult to produce sera, vaccines, etc. of standard quality.

RECOMMENDATION—Special efforts should be made to develop suitable alternatives to animal experimentation. To the extent that the systems of medicine other than the modern system need not rely on animal experimentation they deserve encouragement.

Chapter IV—Slaughter of animals

337. Animals are subjected to all manners of cruelty before and during slaughter. They are driven on foot or transported by rail or lorries over long distances to slaughter-houses in sun and rain and without proper provision of food and water. There is over-crowding in pens or lairs in slaughter-houses in which they are housed. Sometimes animals in pens can see the actual slaughter of their companions in the slaughter-hall. Arrangements for ante-mortem inspection of animals are generally unsatisfactory so that even young, pregnant and useful animals as well as diseased animals are passed for slaughter.

338. There are municipal regulations to prevent animals from being ill-treated during their transport to slaughter-houses, during housing, feeding, and watering, etc., but these regulations are mostly evaded.

RECOMMENDATIONS—(1) Animals should be provided with food, water and rest at regular intervals during transit to slaughter-houses.

(2) Pens or lairs should be large enough to accommodate comfortably the animals brought for slaughter; they should be well-paved, well-drained, properly ventilated and lighted. There should be adequate arrangements for the supply of food and water.

(3) For proper ante-mortem inspection whole-time veterinary surgeons and other trained staff should be employed and slaughter-houses should be constructed on scientific lines. Uniform procedures should be laid down by municipalities for the guidance of meat inspectors in their inspection work. Special legislation may have to be enacted, making it obligatory on municipalities to effect these improvements.

Construction of modern slaughter-houses

339. There is hardly any slaughter-house at present in India which can be called 'modern'. The need to construct slaughter-houses on modern and

scientific lines with full facilities for the proper care, management and ante-mortem inspection of animals cannot be over-emphasized.

RECOMMENDATION—As the establishment of a sufficient number of modern slaughter-houses in the country will take considerable time, a beginning may be made in this direction by setting up model slaughter-houses in big cities. Central and State Governments should consider providing suitable financial and technical aid to municipalities for this purpose.

Methods employed in slaughtering animals

340. In India, animals are slaughtered for food by the 'Halal' or 'Jhatka' methods. The method of slaughtering pigs is somewhat different from that of slaughtering cattle, sheep and goats and is attended with considerable cruelty. In many foreign countries, on the other hand, food animals are generally slaughtered only after stunning them by non-mechanical, mechanical, electrical or chemical methods. Of these various methods, it is the mechanically operated "Captive Bolt Pistol" which is widely used in most European countries. The use of carbon dioxide gas for this purpose was recently developed in the U.S.A. and its use is still very much restricted.

Humane methods of slaughter

341. To prevent cruelty to the large number of animals being slaughtered daily in India, the Committee would strongly favour the introduction, as early as possible, in India of any of the mechanical, electrical or chemical methods which are in use in foreign countries for rendering animals insensible to pain before actual slaughter.

RECOMMENDATION—A law may be passed providing for the adoption of humane methods of slaughter in general terms, *i.e.*, for the adoption of mechanical, electrical, chemical or other means which are found to be rapid, effective and humane. The law should make special provision to accommodate such religions as prescribe certain methods for slaughtering animals. As a first step in this direction, all large slaughter-houses in big cities may be persuaded to adopt humane methods in the slaughtering of animals. This will have to be supplemented by a country-wide programme of educative propaganda explaining the advantages of humane methods of slaughter.

Laws and rules for regulation of slaughter

342. So far, 20 States have passed laws prohibiting the slaughter of young and useful animals; of these, 12 States have imposed a total ban on the slaughter of cows and their progeny. Besides, there are municipal bye-laws for the regulation of slaughter. As the laws and rules are not properly enforced, treatment of animals before slaughter as well as their actual slaughter is attended with considerable pain and suffering.

Municipalization of slaughter-houses

RECOMMENDATION—For the proper enforcement of municipal regulations and to enable improvements to be made in slaughter-houses, it is recommended that municipalities should assume complete control over all operations relating to slaughter of animals from the pre-slaughter stage to slaughter, flaying or skinning of carcasses etc. Further, the income derived

from slaughter-houses should be spent on effecting improvements in slaughter-houses instead of being treated as part of general revenues of municipalities.

Model Rules for regulation of slaughter-houses

343. RECOMMENDATION—Municipalities in India should adopt the Model Rules for the regulation of slaughter-houses to the maximum possible extent, depending on local conditions, and enforce them strictly.

344. OTHER RECOMMENDATIONS—(i) Women and children should not be allowed under any circumstances to enter slaughter-houses nor should they be employed in any operation connected with the slaughter-house.

(ii) 'Visitors' including public men should be nominated by municipalities to visit slaughter-houses to ensure that municipal regulations are fully observed.

(iii) Un-recognized slaughter-houses should be closed down to stop illicit slaughter of animals.

Chapter V—Animal sacrifices

345. Extremely crude methods are employed to kill or maim animals and birds before deities in some parts of India. There are laws in Madras, Andhra, Mysore and Travancore-Cochin States prohibiting such sacrifices, but except in Travancore-Cochin where animal sacrifices have completely disappeared, these laws have largely failed to achieve their objective, mainly on account of indifference on the part of the public to the cruelties perpetrated on animals during sacrifices.

RECOMMENDATION—The sacrifice of animals, including birds, to propitiate a deity, should be banned by legislation. To achieve this, widespread educative propaganda is essential.

Chapter VI—Animal sport

346. Animal sport which is recognized by some as an old, healthy and useful institution may continue but under strict regulations.

The existing game laws in various States embody practically all that is necessary for the protection of wild animals and birds and for preventing cruelty to them during hunting and shooting. Their enforcement is, however, far from satisfactory. Poaching is quite common.

RECOMMENDATIONS—(i) The existing game laws should be strictly enforced and to that end the requisite administrative machinery should be set up.

(ii) Game licences should be issued with utmost caution. They should be granted only to those who produce certificates of proficiency in handling guns, rifles, etc. and in shooting at moving targets. Every licence should be accompanied by a pamphlet which should highlight the important provisions of game-laws, give information on the proper use of weapons and regarding the choice of arms and ammunitions for shooting different classes of wild animals and birds and other necessary details.

(iii) As the use of traps and snares almost invariably causes suffering to the captured animal, it is necessary that, only such traps should be

allowed to be used the design of which has been approved by a competent authority.

Capture and training of elephants

347. The capture and training of elephants are attended with considerable cruelty. Elephants are captured by the pit, noose or stockade methods.

RECOMMENDATIONS—(i) The stockade method for capturing elephants is the least objectionable and should gradually replace the pit method. All precautions should be taken to avoid suffering involved in the capturing of elephants.

(ii) Adequate precautions should be taken to prevent suffering during training.

Crop protection licences

348. Crop protection licences issued to agriculturists under the Grow-More-Food drive have been largely abused. Apart from the suffering caused to animals as a result of inexpert shooting by agriculturists, the unrestricted use of such licences has resulted in the extermination of certain species of animals from certain areas.

RECOMMENDATION—The question of abuse of such licences may be considered. One suggestion is that instead of issuing such licences to individual agriculturists, some kind of a Crop Protection Corps may be created for killing animals in the areas where they have become a menace to crops.

Game sanctuaries

349. The preservation and protection of wild life can be best achieved by the establishment of game sanctuaries and national parks. The Second Five-Year Plan provides for the establishment of 18 national parks and game sanctuaries in India.

RECOMMENDATION—Game sanctuaries and national parks should be set up all over the country.

Publicity and propaganda

350. It is well-nigh impossible to achieve the objective of wild life preservation unless effective steps are taken to popularise wild life and educate and create public opinion in favour of it. The Indian Board for Wild Life and the Wild Life Boards in States are trying to promote public interest in wild life.

RECOMMENDATION—For this purpose, increasing use should be made of documentary films, radio broadcasts, press and other means of publicity and propaganda.

Chapter VII—Performing animals

351. The exhibition of performing animals in circuses has two aspects: training and actual performance. The training of animals, particularly wild animals, involves cruelty. A variety of devices, some of which are inconvenient and uncomfortable, have to be adopted while training animals to

perform. Actual performances are attended with pain and suffering when animals are made to perform feats which are contrary to their natural inclinations or habits. Regulations are, however, necessary to prevent the training of animals as well as their performances from being abused.

RECOMMENDATION—Circuses of performing animals may continue subject to regulations.

Street performances

352. RECOMMENDATION—Street performances should be licensed and adequate supervision and control exercised on the proper health and maintenance of animals by subjecting them to periodical inspections, so that any cruelties involved may be prevented.

Animal and bird fights

353. Animal and bird fights are a common source of recreation, mostly in villages but they cause serious injury to the animals and birds engaged in them.

RECOMMENDATION—Such fights should be prohibited by law.

Chapter VIII—Keeping or confining animals in municipal markets

354. Animals and birds are subjected to a certain amount of suffering under the existing arrangements for keeping or confining them in municipal markets.

RECOMMENDATION—Confinement of animals in municipal markets should be regulated by comprehensive rules to be prescribed and enforced by municipalities. All sellers should possess a licence which should prescribe rules regarding sizes of cages, baskets, etc., adequacy of space, food and water and hygiene, sanitation and veterinary aid, etc.

Khatals

355. In the Khatals owned by private milk producers animals are housed under most appalling conditions of congestion and filth. Most animals, when dry, are handed over to butchers. The calves are starved to death. "Phooka" is a common practice. Veterinary aid is hardly available.

356. Schemes for the maintenance of animals and production of milk under healthy conditions by removing cattle from dirty city stables and colonizing them in nearby rural areas, are being implemented.

RECOMMENDATION—Highest priority should be given to the implementation of cattle colonization schemes so as to cover all the big and densely populated cities of India. Meanwhile, urgent steps should be taken to improve the existing conditions in khatals. They should be licensed and controlled by municipalities.

Keeping of pets

357. Ordinarily, pets are looked after well by their owners, but sometimes they are mis-handled, even though not deliberately. Occasionally, pets have been seen to suffer at the hands of children who are allowed to play with them.

RECOMMENDATION—The selling and keeping of pets should be licensed by municipalities. It should be made obligatory on the sellers of pets to supply booklets to the buyers containing all necessary information about the habits and the way of life of the pets sold.

Zoos

358. Cruelties involved in the confinement of animals and birds in zoos arise mainly from keeping them under unnatural conditions.

RECOMMENDATIONS—(i) The zoos in India should be re-organised on scientific lines keeping in view the need to provide natural habitat to animals.

(ii) To improve the defective methods of feeding zoo animals, a thorough study should be made of the feeding habits of different zoo animals by the authorities of zoos.

(iii) The practice of feeding live animals to such animals as lions, tigers, etc., in zoos is extremely cruel and should be avoided as far as possible.

(iv) The superintendent or any other officer who may be in charge of a zoo must be a qualified zoologist. It is also equally necessary that a veterinarian, whole-time or part-time, should be associated with the administration of zoos. Also, one senior official of the State Animal Husbandry Department should be represented on the managing committee of a zoo.

(v) The Government of India and State Governments should consider the desirability of giving suitable financial assistance to zoo administrations for the development of zoos.

(vi) The zoos should provide facilities for the breeding of pet animals under natural conditions.

(vii) To promote the educative purpose of a zoo educative literature in the form of post-cards or pamphlets should be prepared and supplied to visitors.

Chapter IX—Transport of animals by rail

359. Animals are subjected to inhumane treatment during transport by rail. They are over-crowded in railway wagons which are not suitable for the transport of animals; arrangements for the supply of food and water are inadequate; often attendants do not accompany them during the journey. Fowls are packed in baskets like goods. There are rules framed by the railways seeking to provide all facilities to animals and birds during transport by rail, but these are mostly disregarded both by the railway staff and the consignors.

RECOMMENDATION—The existing railway regulations should be strictly enforced. Animals should be transported in wagons specially constructed for the purpose. There should be adequate arrangements for the provision of food and water during transit. Loose-shunting of wagons containing animals should be strictly prohibited. Animals should not be allowed to be transported during hot months. All animals, or at least those meant for exhibition in zoos or cattle and poultry shows, should be transported by fast passenger trains. For the information of public posters containing rules

and regulations for the transport of animals should be prominently displayed at suitable places. The existing railway rules should be amended, if necessary.

Transport by road

360. Animals are carried generally in vehicles or driven on foot over long distances in sun and rain and without proper provision of food and water.

RECOMMENDATION—Animals should be transported only in vehicles suitably designed for this purpose and there should be no over-crowding. Wells or small tanks should be constructed at suitable distances on roads so that animals can get water when thirsty. In weekly markets or fairs where cattle and other animals are brought in large numbers, the local authority should make arrangements for the provision of water and fodder for animals. The carrying of animals and birds in unnatural positions should be prohibited.

Chapter X—Export of Monkeys

361. Of the animals exported from India, the monkey is sent out in the largest numbers, largely to the U.S.A. The specie of monkeys exported is the Rhesus monkey whose kidneys have been found to be the best for the production of polio vaccine. The number of monkeys exported is steadily increasing to meet the growing demands of the importing countries; it is now over a lakh.

362. Prior to 1941 there were practically no restrictions on the export of monkeys from India. During the last several years, however, certain restrictions have been imposed with a view to preventing cruelties to monkeys while in transit. In the beginning of 1955 the Government reviewed the export policy and banned the export of monkeys with effect from the 11th March, 1955, except with their previous sanction. The conditions subject to which export is now allowed are as follows:—

- (1) Monkeys should be carried only by air and the exporter as well as the carrier should guarantee humane treatment.
- (2) The end-use of monkeys should be certified by the Government of the importing country as exclusively for (a) medical research, (b) production of sera, vaccines, etc.
- (3) Monkeys should be examined by a qualified veterinary surgeon before export.

363. Monkeys are subjected to cruel treatment during catching and trapping, during transportation to the port of embarkation and during transit from the exporting to the importing country. The cruelties at the port of despatch and during transit arise mainly because the undertakings given by the exporter and the carrier for humane treatment are not fully honoured in the absence of Government supervision and control.

364. With regard to the end-use of monkeys in importing countries, according to available information, they are used mostly for purposes of medical and scientific research and for the production of medicines, sera, vaccines, etc. In the importing countries they are reported to receive

humane treatment before experimentation and all major operations likely to cause them pain and suffering are performed under the influence of anæsthetics.

RECOMMENDATIONS—(i) The Committee is convinced that the end-use of monkeys exported from India is scientific and medical research and production of vaccines, sera, etc. and for that purpose their export may be allowed provided experiments on them in the importing countries are performed under conditions similar to those prescribed for India.

(ii) As the number of monkeys exported is increasing and is likely to increase in future, the Government may have to reconsider its export policy when the number reaches a level likely to result in serious depletion of the stock.

(iii) The Government should exercise stricter control at the various stages of export trade. There should be a comprehensive system of licensing of the trapper, animal dealer, exporter and carrier and the licence should specify all conditions to ensure humane treatment. Inspectors should be appointed for enforcing the licensing provisions and deterrent penalties imposed for breaches.

(iv) To ensure humane treatment to the monkeys in the importing countries, the Government may utilize such agencies as may be available in those countries and may call for periodical reports from them about the conditions of experiments obtaining in those countries.

(v) No export should be allowed to any country where the existing conditions of experimentation do not ensure the elimination of all avoidable suffering to monkeys.

(vi) The catching of monkeys should be done humanely. Proper attention should be paid to their feeding and care during transport to the port of despatch.

(vii) At the port of despatch monkeys should be kept in holding cages of adequate size and properly looked after. They should be examined by a veterinary surgeon.

(viii) At the time of flight they should be transferred from the holding cages to the air-travelling cages, which should have approved dimensions. During flight monkeys should be given humane treatment which would include provision of food and water at regular intervals and adequate rest, protection from exposure, etc. The construction of properly designed animal hostels may be encouraged at all the main airports where the aircraft carrying monkeys generally halts.

Export of wild and other animals and birds

365. Wild animals are exported mostly for exhibition in zoos and also in circuses. The Government of India have recently banned the export of certain wild animals and birds and allowed the export of a few other species subject to permits. There are no such restrictions on the export of other animals and birds. These animals and birds are transported mostly by sea and owing to unsatisfactory conditions prevailing during the voyage they suffer a great deal.

RECOMMENDATION—Government should undertake legislation more or less on the lines of the U.K. Animals (Sea Transport) Order of 1930 to

regulate the loading and unloading of animals and their transport by our ships.

Import of animals

366. The import of animals in India is restricted only to the breeding stock and they are used for purposes which do not involve any cruelty.

Chapter XI—The problem of stray animals

367. The problem of stray animals which exists in varying degrees in almost all parts of India, has two aspects: to control their number and to eliminate, as far as possible, the cruelties inflicted on them during catching, detention and destruction.

368. With regard to stray cattle, the conditions in which they are maintained in municipal cattle pounds are far from satisfactory. Regarding stray dogs, their catching, detention and destruction are attended with considerable cruelty. The methods most commonly employed for killing stray dogs are poisoning with strychnine or gassing in a lethal chamber. In villages, very crude methods are used. Electrocuting causes instantaneous death and is, therefore, a humane method, but this is at present in use only in the Madras and Bombay Municipalities.

RECOMMENDATIONS—(i) The conditions prevailing in the cattle pounds should be improved with regard to housing, feeding, watering, protection from exposure to weather and veterinary treatment.

(ii) All municipalities should enforce a system of licensing dogs and the licence fee should be reduced. Catching should be done as humanely as possible and humane conditions should be ensured during detention. The lethal chamber should be at a distance from the kennel.

(iii) Electrocuting should be introduced for the destruction of stray dogs, where feasible. In the alternative, care should be taken to see that whatever method is used, causes instantaneous death. Government should subsidise municipalities in the adoption of electrocuting.

(iv) Humane killing of stray dogs is the only conceivable way to control their increasing numbers. Municipalities should undertake free vaccination of stray dogs as a measure to combat rabies.

The problem of unproductive and useless animals

369. The humane disposal of old, decrepit and useless animals presents a serious problem in India. Only unproductive and useless cattle are estimated at nearly 16 millions. It is a continuing problem and is further accentuated by the imposition of ban, complete or partial, on cow slaughter in certain States.

Gaushalas and Pinjrapoles

370. There are about, 3,000 gaushalas and pinjrapoles all over India with a population of over 6 lakh cattle of which about 4 lakhs are old and useless. Thus, the existing arrangements touch only the fringe of the problem. Although the majority of the gaushalas and pinjrapoles in the country are not working on satisfactory lines, some of them are doing good work and given requisite facilities of finance and land, they can certainly improve further.

Gosadans

371. Gosadans are being established in different parts of the country to segregate inferior and unproductive cattle in remote forest areas, while gaushalas and pinjrapoles are proposed to be utilized only for cattle improvement. 25 gosadans were established under the First Plan and the Second Five-Year Plan proposes to set up 60 more. But these can house only a fraction of the total number of useless cattle in the country. Further, the usefulness of gosadans is limited in as much as it provides shelter only to useless cattle.

RECOMMENDATIONS—(i) Gosadans should also accept other old and useless animals besides cattle; failing this, institutions may be established where under Government or private auspices useless and decrepit animals other than cattle can be housed. Every encouragement should be given to pinjrapoles which admit all kinds of animals in addition to cattle.

(ii) The cattle pounds, maintained by local bodies, should also freely accept stray animals other than cattle for onward transmission to gosadans and other such institutions referred to at (i) above.

Castration of animals.

372. Although 'Burdizzo Castrator' as a humane and scientific method of castrating animals is commonly employed in veterinary hospitals, in villages crude methods involving a good deal of pain and suffering are still in use for castration.

RECOMMENDATION—The use of Burdizzo Castrator should be popularised. Active propaganda is necessary among villagers about the advantages of this method. The use of this method will require a large number of veterinary staff as the villagers will be shy of using Burdizzo Castrator themselves on their animals.

Specific measures to ameliorate the condition of beasts of burden.

373. RECOMMENDATIONS—(i) Municipalities and S.P.C.A.s should construct sheds and water troughs at suitable distances.

(ii) All States should maintain adequate number of mobile vans which may go into villages, treat sick and wounded animals on the spot and carry on educative propaganda among villagers.

(iii) Municipalities should introduce a system of hire-purchase so that even the poor cart driver may be enabled to purchase pneumatic tyres for his cart.

(iv) To prevent hardship to the poor owners of animals, arrangements should be made whereby it may be possible to provide them with alternative animals when their own are prosecuted and detained for treatment in a hospital. For this purpose associations of cartmen as well as hackney carriage drivers should be formed in towns.

(v) Local bodies should devise improved designs for carts and carriages drawn by animals with a view to causing them the least discomfort and inconvenience.

(vi) Shoeing of animals should be regulated; farriers should be trained and they should be licensed and registered by local bodies.

(vii) To detect cases of over-loading weigh-bridges should be erected.

Reorganisation of S.P.C.A.s in India.

374. RECOMMENDATIONS—(i) The S.P.C.A.s should be manned by sincere and honest persons. Their constitution should be so amended that at least the secretary and half of the members of the managing and executive committees are nominated by Government. The secretary should be an official of the Animal Husbandry Department.

(ii) S.P.C.A.s should place progressively greater emphasis on the positive aspect of their animal welfare programme consisting in education and propaganda.

(iii) S.P.C.A.s should organise mobile units for carrying on publicity and propaganda and also for giving veterinary treatment to animals.

(iv) Inspectors or agents of S.P.C.A.s should have an elementary knowledge of veterinary science.

(v) The present system of determining the quantum of Government grants to S.P.C.A.s on the basis of the amount of court fines realised by them, should be discontinued; such grants should be based on an assessment of the actual requirements of the S.P.C.A.s.

(vi) S.P.C.A.s should make a concerted drive to enlist public support in as large a measure as possible.

(vii) If the Prevention of Cruelty to Animals Act is extended to cover the entire country, there will have to be a network of the S.P.C.A.s and other humanitarian institutions all over the country. District authorities may be entrusted with the responsibility of forming S.P.C.A.s in their respective districts.

Need for humane education

375. The need for humane education in a matter like prevention of cruelty to animals can hardly be over-emphasized. Education is the only means by which social conscience can be aroused to the need for treating animals with love, kindness and compassion.

376. The problem of humane education has two aspects: short-term and long-term. The short-term aspect consists in organising active propaganda among the masses to promote their interest in the protection and preservation of animals and giving them humane treatment.

RECOMMENDATION—An 'Animal Welfare Week' should be observed throughout the country. During this week all available means of publicity and propaganda should be made use of to arouse public consciousness.

377. The long-term aspect consists in imparting humane education to children in all schools from the earliest standard up to matriculation so that the positive virtues of being kind, considerate and compassionate to animals may be inculcated from the very beginning.

RECOMMENDATION—There is no limit to the imparting of humane education but the actual textual education for the purpose may be continued at least up to the matriculation standard. Lessons on kindness to animals stressing the advantages of treating them humanely may be included in the text-books prescribed for children. Interesting stories on the subject may also be included.

Animal Welfare Board

378. RECOMMENDATION—An Animal Welfare Board should be set up at the Centre, with its counterparts in States, for giving over-all advice to the Government as well as humanitarian organizations on problems of animal welfare. Such a Board will pay exclusive attention to the problems of animal welfare which have not so far received the attention they deserve.

The Board will be a statutory body consisting of 17 members, including 6 representatives of the Central Government, 1 representative of veterinary practitioners, 1 representative of medical practitioners, 5 non-officials actively interested in animal welfare and 4 members of Parliament. The Central Government shall nominate one of the non-official members of the Board to be its Chairman. The secretary to the Board will be a Government servant. The funds of the Board shall consist of grants made to it from time to time by the Central Government and of donations, bequests, gifts and the like made to it by other persons.

(Sd) V. B. GANDHI.

(Sd) RUKMINI DEVI (Subject to my note).

(Sd) LAKSHMI N. MENON.

(Sd) K. MITRA.

(Sd) M. D. D. GILDER.

(Sd) R. L. KAURA.

(Sd) AHMED MOHIUDDIN.

(Sd) G. SRINIVASA MURTI (Subject to Smt. Rukmini Devi's note appended to the Report).

(Sd) N. R. MALKANI.

(Sd) G. R. RAJAGOPAL.

(Sd) R. L. MEHTA.

(Sd) KRISHNA CHANDRA.

(Sd) KAKA KALEKAR.

(Sd) D. C. SHARMA.

NEW DELHI;

the 24th January, 1957.

Note received from Smt. Rukmini Devi Arundale

Let me say in the beginning that I should not be understood as dissenting from any of the recommendations of the committee, for they are an improvement on the existing position and I will be sincerely happy to see them implemented both by legislation and other means.

Speaking for myself, however, I feel it my duty to point out that if we really intend to prevent cruelty to animals, as our name implies, certain recommendations should have gone further than they do. I could not sign this report with a clear conscience unless this point of view and the reasons for it are included. I have a fundamental and unalterable conviction, as had Gandhiji (1) and so many other leaders and teachers of our country, that we cannot exploit innocent creatures who are utterly dependent on us and unable to defend themselves or communicate their feelings, without degrading ourselves and working our own ultimate detriment. This is an aspect of the case which is often forgotten. These reforms are not proposed only for the benefit of animals, although what decent man could there be who would not be happy to reduce their misery. We who work for the well-being of animals are working primarily for the moral well-being of man. As Schopenhauer wrote, "Compassion towards animals is so closely associated with goodness of character, that it can be said with certitude; whoever is cruel to animals cannot be good. One might also demonstrate that this compassion and the social virtues have the same source." This applies equally well on the national as on the individual level. We must realise in practice as well as in theory that strength is not for the exploitation, but for the protection of the weak.

I fully understand the need to be practical in these matters, and that movement towards an ideal must be gradual to produce stable and permanent progress in the elimination of the cruelties and malpractices of our present society. But in our recommendations I feel that we have not gone even as far as public opinion and practical difficulties would permit in our country.

For example, I am a vegetarian. I am convinced that it is both cruel and absolutely unnecessary to take the life of other sentient creatures to support our own physical life. I am well aware, however, that it will take generations before this ideal begins to dominate the practice of even so well prepared a society as our own, where it has been preached and practiced by our greatest teachers for thousands of years. It is, therefore, incumbent upon all of us, vegetarians and non-vegetarians alike, to reduce the cruelty in slaughter to the minimum. This our recommendations do not accomplish.

Personally, I feel that in questions of cruelty we should not consider the sentiments of any community. The overwhelming majority of animals slaughtered in India have their throats cut while fully alive and conscious.

(1) Gandhiji wrote, "To my mind the life of a lamb is no less precious than that of a human being. I should be unwilling to take the life of a lamb for the sake of the human body. I hold that the more helpless a creature, the more entitled it is to the protection by man from the cruelty of man." Extract from p. 289 of "The Story of my Experiments with Truth."

No one can contend that this method is not a cruel one except from religious blindness or lack of scientific information. Tests conducted and filmed in the Lennep Municipal Abbatoir, Germany, prior to 1914 before a group of Veterinary Surgeons prove this point conclusively, as other later tests also do. Prof. Dr. Klein, Director of the Abbatoir, writes of these tests (2) :

"I beg the reader to let these 40 seconds (to the time when the sense of pain entirely ceases) pass with a watch in hand. The Majority will be astonished to notice how slowly this period of time in reality passes (3). The reader will agree with me it is all the more condemnable to expose an animal not only to the intense pain inflicted by the actual cut and the preliminary roping, casting, and stretching of the neck, but also to a longer or shorter period of intense fear of death and of bodily pain before the end arrives. All this including even the terrifying and painful preparations, can be spared the animal through the modern method of stunning."

It hardly needs mention that pre-slaughter stunning, which was "modern" before the first world war, is just being considered here more than forty years later.

In my opinion, the best step, and a completely practical one, which we could take to reduce all this suffering is the prohibition of all methods of slaughter which do not include instantaneous stunning prior to cutting the throat and bleeding the animal. Suitable legislation could be framed allowing this to be introduced gradually as instruments and training become available in different areas, but specifying a certain number of years as a maximum period during which it must take effect everywhere and for all slaughter.

Furthermore, our recommendations in this regard relate only to slaughter-houses. While I understand that it is impractical outside of slaughter-houses to attempt to go beyond the general provision about killing in an unnecessarily cruel manner (4), it would be feasible, it seems to me, to require, at least in all cities, towns and villages, that all slaughter be restricted to slaughter-houses.

Even if it be insisted that, for religious reasons, certain communities be allowed to kill in an unnecessarily cruel manner, an exemption of which I do not approve, we should at least make legal provision, as does the English law, that such meat be used only by the communities concerned. Should the populace in general, which is willing and in some communities eager to accept humane slaughter, be forced to support the continuation of these cruelties? Here again, I realize that the economic factor becomes involved, and a specific period of adjustment should be allowed for the necessary changes to take place, but the maximum period should be fixed now so that the changes can begin, and will actually take place. These are the ways in which I think the recommendations regarding slaughter fall short of what can be practically accomplished today.

With respect to performing animals, since the business is a small one in India and we certainly do not want to encourage the suffering which

(2) From an article in *Progress Today*, December 1928.

(3) I suggest in making this test you place your hand in boiling water and you will have a better idea how slowly the time passes for an animal in the throes of dying.

(4) See sections 5, 5A, 5B of the present Act, and section 11, (1) (m) of our recommended Bill.

accompanies the travelling of foreign performing animals to India, I feel that the prohibition of performances by animals for profit or public exhibition is the only way, and a practical one, for doing away with the cruelties of this form of entertainment. I myself have recently visited an Indian circus and asked an agent of the management about the training of the wild animals. He replied quite frankly that there was a great deal of cruelty involved and that with the tigers it sometimes took as much as two years to break the spirit of the animal sufficiently for performance purposes. Opinions were not wanting in the committee to support the idea that at least the performances of wild animals should be prohibited. Anyone who studies the methods used in attaining these performances cannot but agree with Jack London when he wrote that "... no normal healthy human would tolerate such performances did he or she know the terrible cruelty that lies behind them and makes them possible."

It is essential for making an animal *invariably* perform such unnatural tricks *whenever* and *wherever* it is demanded of him, and *at the very moment* it is demanded of him, that he be so terrified of the trainer that his terror will overpower his fear of the ring of fire (or whatever it is), the lights, noise, etc., and all his other natural inclinations. In fact, most experienced trainers of wild animals believe, as Clyde Beatty has admitted, that once an animal has lost his fear and hatred of man, he is useless for performances. For wild animal acts particularly, the animal *must* be afraid to be under the required rigid control, and he *must* be full of hatred and ferociousness to make a spectacular act.

The Performing Animals Defence League of London widely advertised a reward of £ 500 in 1950 to anyone who would train *any* untrained animal to perform on demand *any* circus or music hall trick without cruelty. No serious application for the reward has been received, for the truth of the matter, as expressed by Sir Peter Chalmers Mitchell (5), then Secretary of the London Zoo, before the official British Select Committee (6), is that :

"If at a quarter past eight in the evening, when the curtain goes up, you have to get your animals on the stage and do the trick at once, lest the manager and the public be discontented, then, in my experience, there is the gravest possible risk that there has been cruelty not only in 'training' the animal, but continuous cruelty in keeping the animal to the mark for these, what may be termed, time performances."

Our recommended Bill (Chapter VI) might be regarded as satisfactory if the entire training of all the animals being trained for this purpose in India could be supervised. Where observation is intermittent, training can be easily sweetened under observation. If, as authorities on the subject point out, such training is inseparable from cruelty (7), the only way to prevent cruelty is obviously to prohibit the performances altogether. With some compensation and a period during which the adjustment can be made, this is quite a practical proposition for India.

(5) D.Sc., LL.D., F.R.S., F.Z.S., C.B.E.

(6) House of Commons, Official Report, 1922, No. 2220.

(7) Anyone who thinks there is no cruelty in training and exhibiting performing animals may read the cruelties seen by witnesses testifying under oath before the Select Committee of the British Parliament, and can get more recent examples from the societies fighting against this evil.

With regard to the capture and export of our wild animals for performing animal shows, travelling menageries and other purposes, I am in full agreement with the point of view expressed by Sri M. D. Chaturvedi, then Inspector-General of Forests, Government of India, in the following extract from a note he sent to the Ministry of Industry and Commerce on 29-9-1950 :

"That this land of Buddha, should permit itself for the sake of filthy lucre, to connive at the insensate cruelty involved in the caging of birds and trapping of wild animals for whom their liberty is their very life, provides a measure of the retrogression in our moral values. Is it too much to ask to let our voiceless denizens of the forest enjoy a certain measure of liberty—the liberty to live—now that liberty has dawned on this land ?

"I am afraid I cannot reconcile myself with the proposal of allowing a free trade or even controlled trade in wild life. As a concession to the educative value of the zoos and their role in inculcating the love of wild life, I recommend that the export of wild animals should be confined to the requirements of these institutions alone. No export licence should be granted to any firm or individual dealing in wild animals. I am in agreement with the Secretary, Zoological Garden, Calcutta, that such transaction should take place on a barter basis, and not on a money basis. The Superintendent of the Zoo at Calcutta holds the same view. The existing policy of the Ministry of Commerce of allowing free trade in wild animals needs to be revised..."

Regarding animal sacrifices, they are a disgrace and a degradation to any nation, civilization, or religion which tolerates them and should be prohibited by Central Legislation, whether they relate to Hindu, Muslim, tribal, or any other customs. The connection between the killing of animals and religion is itself a demoralizing and debasing relationship and a general stimulus to cruelty, leaving alone all the horrible cruelties which have been perpetrated in these sacrifices. As Gandhiji said in a telegram he sent trying to stop some sacrifices in Madras State, "Sacrifice of animals in the name of religion is a remnant of Barbarism." On the same occasion our Prime Minister telegraphed, "I think that such sacrifices are barbarous and they degrade the name of religion.....".

No one can deny that when we take the life of a creature without its full consent, unless it be to spare it unrelievable suffering (mercy killing), no matter how the killing may be done, the deprivation of life is itself a cruelty. To indulge in such cruelty in connection with religion makes it a socially demoralizing influence as well, and one which has not even the claim of necessity, as slaughter does. If on religious festivals meat is needed, it should come from the slaughterhouse, where humane slaughter rules will be in force. The killing of animals in connection with religion should be absolutely prohibited.

One of the strangest anomalies of the present Indian scene is that while the Indian population as a whole tends to deprecate what are often referred to as the "blood sports", we continue to try to attract tourists and well-to-do Indians into our forests and mountain ranges for the joy they take in killing and injuring wild creatures (8). Hunters often claim that their joy is not in killing, but in the chase and the "sport" involved. It is only too obvious how thoroughly unsporting modern hunting is, and the chase can be just as exciting and certainly more sporting with a camera. But this is not enough for

(8) See such publications as "With Gun and Rod in India", issued by the Tourist Branch of the Ministry of Transport.

the hunter. He enjoys killing. The hunter wants the "fruits" of the pursuit, as they say (9). And what are the "fruits"? Pain, mutilation, and death to some innocent creature of the forest.

I have never met a man who could look me in the face and say it is right to kill and maim for pleasure. Killing may conceivably be regarded as necessary for food, the protection of crops and life, and so forth, but the sport-hunter pollutes our civilization with his unconsciously sadistic pleasure. It is certainly simple and quite practical in the majority of cases to distinguish between the well-to-do "sportsman" or tourist, and the poor man who needs the meat for food. Our recommendations are far from preventing cruelty in this respect, since they do not even propose any fundamental improvement in the existing situation. I think there is no way to prevent cruelty except to prohibit sport-hunting. To claim that killing and maiming wild animals for *personal enjoyment* is to inflict *necessary* pain and suffering is obviously a distortion of words for the protection of a cruel usage.

In regard to the capture of wild elephants, our report has not mentioned an important practical alternative to capture, perhaps because Indian foresters have disparaged the idea. We may recommend for immediate improvement the use of the least inhumane method of capture, in order to reduce the cruelty involved, which, in my opinion is considerably more than our report seems to indicate (10). But, as the whole world knows through the books of "Elephant Bill" (11), elephants have been bred and trained in captivity by the Bombay Burma Trading Corporation, and now the Burma Government, for more than thirty years with excellent results (12). This obviates the need for breaking the spirit of the animal with all its atrocious cruelties and has produced some of the finest work animals they have ever had (13). The Government should study this method and try to introduce

(9) See Chapter VI of this Report, Section 159 (iv).

(10) Lt. Col. J. H. Williams, O.B.E., one of the most experienced of elephant men, who worked more than 20 years in the jungles of Burma and was one of the organizers and senior officers in the Elephant Companies of the XIVth British Army in the recapture of Burma, has this to say:

"There is undoubtedly cruelty in breaking the spirit and training wild elephants after they have been captured. The spirit of a youngster of that age (15 to 20), whether male or female, takes a lot of breaking. It often takes weeks.....In the end, the young animal becomes heartbroken and thin. Finally it realises that it is in captivity for the rest of its days, and after the last heartbreaking struggle will put up with a man on its head. By then it is usually covered with sores and wounds." p. 74, "Elephant Bill" (see 11).

(11) Two books, "Elephant Bill", and "Bandoola", by Lt. Col. Williams (see 10), Rupert Hart-Davis, 1952 & 1953.

(12) The first work animal generally known to have been born and trained in captivity, and one of the greatest of Burmese work elephants, was Bandoola, born 1897, trained 1903, for whom the book 'Bandoola' was named (see 11).

(13) For a full description of a normal elephant school for training those born in captivity, read Chapter VI of "Elephant Bill." Lt. Col. Williams, while not claiming to have discovered the technique, was the first to develop it into a regular system for what he calls "mass application".

it in India, for in the long run it could eliminate *all* the cruelties in elephant capture and training, besides producing better work animals and a better relationship between the animals and their mahouts.

From a subject like hunting, which is supported by usage but readily succumbs both to logic and sensitivity, we come now to a most controversial question. Here also humane feeling is supported by logic and experience, but this is not generally realized due to ignorance and misconception.

Animal experimentation (vivisection) (14), if it stands at all on a logical basis, stands on the proposition that the end justifies the means. As our Prime Minister has pointed out (15), the great teaching of Gandhi was that the ends do not justify the means. That is why Gandhiji was a bitter opponent of the use of animals for experimentation all his life. Mrs. Lakshmi Menon, Dr. G. Srinivasamurthi (16) and I are as firmly opposed to it as Gandhiji was (17). Two other members of the committee are also opposed to it on principle but felt that the best which could be done for the time being was to have a strictly enforced law without any "loopholes", that is to say, where the object of the experiment is frustrated by the use of anesthetics to prevent pain, the experiment should be sacrificed and the animal spared rather than *vice versa*. Their intention would be that animal experimentation may be gradually reduced and finally eliminated over a period of time.

(14) The term "vivisection", which has been employed for more than 75 years in the fight against cruelty to animals, has come by usage to connote far more than it denotes. The term "animal experimentation", which scientists prefer for the reason that it is more accurate and has less stigma attached to it, does not cover the same ground. Neither term is really sufficient, but in usage "vivisection" has come to refer all abuse of animals in connection with these matters. Animals are abused commercially in the vast drug and cosmetic industries, for teaching purposes, and in many ways which are not "experimentation". I will use in this note the term preferred by the scientists as much as possible, but I wish it to be understood that the term as I use it is interchangeable with the term "vivisection" taken in its largest sense, as defined in my Bill (No. XXV of 1953) :

"Vivisection means the causing of any pain or injury or the doing of anything which may result in pain or injury to any animal in connection with—

"(a) experimentation in scientific, medical, industrial or any other kind of research;

"(b) the manufacture, testing, or standardising of drugs, serums, vaccines, toxins, poisons, war materials or any medical, pharmaceutical, chemical, or other preparation ;

"(c) instruction or training in any field of science, whether in medicine, biology, physiology, pathology, psychology, warfare, or any other science, and whether by way of demonstrations, or practice operations, or in any other way."

(15) Extract from the Prime Minister's Presidential Address to the Indian National Congress, January 23rd, 1954 :

"We can never forget the great teaching of our Master (Gandhiji) that the ends do not justify the means. Perhaps most of the trouble in the world today is due to the fact that people have forgotten this basic doctrine, and are prepared to justify any means in order to obtain their objectives."

(16) B.A., B.L., M.B., C.M., Capt., Indian Medical Service, Member Sir Mohammed Usman Committee, Vaidya Ratna, First Principal, College of Indigenous Medicine, Madras.

(17) I mention their names with their permission.

It is often said that the attitude of such men and women as Gandhiji, Rabindranath Tagore, Vinobha Bhave, George Bernard Shaw, Annie Besant, and the many other well-known persons who have opposed animal experimentation (18) is a die-hard and unprogressive attitude. On the contrary, it is most progressive, for it is certain, as the great American surgeon, Dr. Henry J. Bigelow (*See* 32) pointed out, that "There will come a time when the world will look back to modern vivisection in the name of science as they now do to burning at the stake in the name of religion." It is die-hard in a sense, for it is not only hard to kill this point of view, but it never will die. In fact, as long as there is a growing sense of decency and man is progressing morally, the opposition to vivisection will become stronger and more effective, as it has in recent decades all over the world.

People are much impressed by the opinion of "experts", and the expert point-of-view has been well represented in our report. What should be clearly understood when this question is considered is that it is not primarily a scientific question, except as regards utility; it is an ethical and social matter to be decided by the society as a whole. The question of whether society can tolerate so unwholesome an influence as the infliction of suffering on helpless animals in the pursuit of physical well-being is one which cannot be left to experts. The issue is the health of the social body as against the health of the social soul. The moral well-being of the whole society is at stake.

(18) From among the hundreds of outstanding people who have expressed themselves, as being opposed to vivisection, I have chosen only a few, particular omitting a long list of scientists, some of whom will be mentioned later in other footnotes, and a long list of eminent Christian clergymen :

Robert Louis Stevenson	Senator Arthur Capper
John Galsworthy	Robert G. Ingersoll
Luther Burbank	James Oliver Curwood
Fannie Hurst	Louis Bromfield
Mark Twain	Schopenhauer
Richard Wagner	Clarence Darrow
Leo Tolstoy	Helen Keller
Victor Hugo	Cary Grant
Harriet Beecher Stowe	Thomas Hardy
George Arliss	Queen Victoria
Mary Pickford	John Ruskin
Maurice Maeterlink	Lord Tennyson
Sir Edwin Arnold	August Comte
Edward Bellamy	Thomas Carlyle
Arnold Bennett	Lewis Carroll
Marie Corelli	Irene Castle
William Lloyd Garrison	Charles Dickens
Edward Carpenter	Henry Berg
William Randolph Hearst	General Rush C. Hawkins
Gene Tierney	Ralph Waldo Trine
Justice Henry B. Brown, U.S. Supreme Court	
Justice William R. Day, U.S. Supreme Court	
Lord Chief Justice Coleridge	
Hon. George R. Farnum, U.S. Assistant Attorney General	
The Dowager Duchess of Hamilton and Brandon	
Rear Admiral Charles E. Clark, U.S.N.	
Air Chief Marshal Lord Dowding.	

Among the outstanding persons of our own country who have similarly expressed themselves are :

Sri Morarji Desai, Minister for Commerce and Industry.
 Sri H. C. Mukerjee, the late Governor of West Bengal.
 Sri Sampurnanand, Chief Minister, U.P.
 Dr. C. P. Ramaswami Aiyar.

It is generally contended by those who have most concern with the allopathic (or "modern") (19) system of medicine, that the abolition of animal experimentation would check scientific progress. This is by no means a universal opinion even in the medical world (20) but few doctors dare to risk

(19) Doctors object to calling it the "allopathic" system of medicine and prefer that it be referred to as the "modern" system of medicine. Since, however, there are many modern systems of medicine, I will continue to use the word "aloopathic".

(20) A few medical opinions from among many:

(a) James F. Brailsford, M.D., Ph.D., F.R.C.P., F.I.C.H. (Hon.) (Emeritus Director of Radiological Studies in Living Anatomy), University of Birmingham, writing in the *Birmingham Post* for March 16th, 1955):

"The responses of animals and the responses of man are entirely different but the recital of the findings (of animal experimentation) is determined by what they consider for themselves to be expedient—not what is the truth. Thus though the experiments on dogs indicated that Agene is a poison the authorities for years allowed its use in the preparation of bread for human consumption. Drugs which cure tuberculosis in animals, or have no dangerous effect, can kill humans. Is it not reasonable to believe therefore that experimental animals may be killed by preparations which would benefit mankind—therefore may not the fatal experiments on animals deter or prevent the use of such beneficial preparations for man?"

(b) Dr. James Burnet, M.D., M.A., LL.B. (Lond.), F.R.C.P.E., former senior clinical tutor to the Royal Infirmary, Edinburgh; writing in the *Medical World*, May 18th, 1945:

"It is surely high time that medical men who are actually practicing the healing art took some active steps to check the great onrush of animal experiments which is, in so many ways, threatening the very foundations of practical medicine."

(c) Dr. R. Fielding-Ould, M.D., M.R.C.P., M.A., *The Animal's Defender*, June 1947:

"We are often told that to abolish vivisection would be to impede the progress of medical science... It is, however, an undeniable truth that during the last 30 years the infliction of intense torture to unknown myriads of sentient animals has not resulted in the discovery of a single remedy of acknowledged and generally accepted value in the cure of disease... Speaking more generally of the progress of medical science a physician writes from Bellevue Hospital Medical College: 'Not only have I never seen any results commensurate with the suffering inflicted, but I cannot recall a single experiment which, in the slightest degree, has increased my ability to relieve pain, or in any way fitted me to cope better with disease.'"

From *Recent Medical Opinions Against Vivisection* collected by the National Anti-Vivisection Society. London, 1949:

"In spite of the power of mass opinion in the medical profession 'to quell independence of mind', there have been, and are, no few medical men of distinction who have had the courage to publicly condemn the practice of vivisection, as not only unnecessary and useless but, more often than not, actually misleading.

"Lawson Tait, one of the most distinguished surgeons of his day, declared: 'Vivisection as a method of research has constantly led those who have employed it into altogether erroneous conclusions, and the records teem with instances in which not only have animals been fruitlessly sacrificed, but human lives have been added to the list of victims by reason of its false light.'"

(d) H. Fergie Woods, M.D. (Brux.), M.R.C.S., L.R.C.P.; From *Recent Medical Opinions Against Vivisection*, 1949:

"I have studied the question of vivisection for thirty-five years and am convinced that experiments on living animals are leading medicine further and further from the real cure of the patient.

"Where the facts elicited by vivisection are not of mere academic interest, they are such as could be more easily and completely learned by methods involving no use of animals.

"I know of no instance of animal experiment that has been necessary for the advance of medical science, still less do I know of any animal experiment that could conceivably be necessary to save human life."

(e) R. T. Bowden, M.D., M.R.C.S., L.S.A.; *Recent Medical Opinions against Vivisection*, 1949:

the ostracism which follows open opposition to animal experimentation (21). The development of modern scientific medicine has never been attempted in

"With reference to vivisection, I agree entirely with all the objections urged with regard to the fiendish cruelty and wickedness of this practice.

"But there is another point which is not so frequently put before the public. What guarantee have we that by trying to protect ourselves from one disease we are not lessening our power to resist attacks from other diseases? That this danger really exists is proved by vaccination, which was extensively employed for nearly a hundred years before it was discovered that vaccination was a frequent cause of fatal encephalitis."

(f) G. F. Walker, M.D., M.R.C.P., late medical register at Leeds University, writing in the *Medical World*, December 8th, 1933:

"My own conviction is that the study of human physiology by way of experiments on animals is the most grotesque and fantastic error ever committed in the whole range of human intellectual activity. And like all such errors is defended by its adherents, either by an arrogant and muddle-headed fanaticism, or a cantakerous petulance.

"I believe vivisection *overwhelmingly on the whole*, has misdirected research, misled research workers, and by absorbing energy, money, intellect and time in the pursuit of frequently barren investigation, has incalculably delayed and impeded medical progress. Vivisection does not present human problems in accurate focus. The good results which have accrued from vivisection are its adventitious and occasional by-products. Its main products are waste, misconception, sophistry and suffering."

(g) M. Beddow Bayly, M.R.C.S., L.R.C.P.; in a lecture delivered before the University of Oxford Medical Society on February 22nd, 1949:

"I hope it is already becoming clear that the criticism, so often levelled against anti-vivisectionists, that they are the enemies of scientific research is really untenable. They only oppose one particular method of investigation, and it is a matter of common knowledge among scientists that failure or obstruction along one line of research invariably acts as an incentive to the exploration of other and more fruitful avenues.

"It is my conviction that the abolition of vivisection would result in medical science turning its attention to other methods of research which, being more in conformity with common sense, logic and the dictates of humane feeling, would lead to successful results and to the acquisition of knowledge beneficial in all respects to the health and happiness of the human race.

"Nor am I by any means alone in this contention. A growing number of my colleagues would agree that it is time medical science realised the barren nature of much of the laboratory-dictated research of the present day if Medicine itself is to escape that disruption and downfall which Mr. J. E. R. McDonagh has predicted (see below) as the inevitable outcome of its present trends. The late Sir James Mackenzie expressed this warning in his own vivid way when he wrote in his book, *The Future of Medicine*:

"The limitations and defects of these (laboratory) methods have not been realised, and while their use is supposed to be evidence of progress, it is often but a procedure demonstrably opposed to the best interests of medicine."

The prediction referred to above, by Dr. McDonagh, (F.R.C.S., Founder and Director, Nature of Disease Institute, Surgeon, London Lock Hospitals, Hunterian Professor, R.C.S., 1916) is to be found in *The Nature of Disease Journal*, Vol. I, 1932:

"There are more than sufficient research institutes and journals, but it is results which count, not numbers. The whole foundation upon which modern medicine has been built is unsound, and many further additions to the edifice will bring about its downfall."

(h) Dr. Charles Henry Duncan, reported to be the only living and practicing physician in America whose name and works are recorded in the Standard Medical Dictionaries of America and Europe, and the only one who has received the distinction of having been honoured by France with the decoration, "Commander of the Order of Glory and Distinction"; from a letter to the Vivisection Investigation League, November 13th, 1941:

"Vivisection has been overdone. We now know there are other means of combating disease that do not require the prolonged suffering and sacrifice of animals.

any country where the use of animals is totally prohibited, and some scientists are of the opinion that medical science would advance *more rapidly* in such

These methods, too, are more efficient than animal experimentation . . . It is difficult to remould the medical mind to things other than he has been taught in his text books. We could stamp out all the epidemics and pendencies without the suffering or destruction of a single animal, but physicians appear so hard-headed they will not use newer and more modern methods no matter how efficacious they are."

(i) J. Stenson Hooker, M.D., L.R.C.P., L.R.C.S., etc.; from a letter to M.R.L. Freshel, October 2nd, 1936:

"I am eighty-three and have fought against the horrible and devastating practice of vivisection for the last thirty-five years—ever since my advent to London. . . . I have now been in the profession sixty years during which time I have never been indebted to vivisection in any way for any good I happened to have done in my job of healing and attempts of doing so, and the longer I live the more abominable and the more cruel and the more useless the whole practice of it seems to me. Moreover, it has barred all true progress in Medical Treatment."

(j) Arthur V. Allen, M.D., for many years Chief Surgeon of the Commonwealth Edison Company, formerly professor of ophthalmology at Illinois Post Graduate Medical School, Fellow of the American Medical Association, the American Association of Industrial Physicians and Surgeons, etc. etc.; in a pamphlet for the public entitled *Vivisection, a Vice not a Virtue*, 1952:

As a doctor I wish to point out that doctors are men, not magicians. They are liable to error, singly and *en masse*. At one time or another they have erred absolutely in opposing ether anaesthesia, disdaining aseptic surgery, and insisting upon blood-letting as a cure-all. . . .

"I should like to suggest, in this connection, that while the abolition of vivisection might temporarily upset and embarrass certain medical procedures, it might equally well give medical science a marked forward stimulus by obliging research workers to direct their energies into diverse and relatively unexplored research channels."

In giving these few examples I have purposely avoided earlier quotations, but it should be mentioned that some of the best medical minds of this and last century have repeatedly given similar warnings and raised similar objections. Only a few can be mentioned here:

(k) G. G. Bantock, M.D., F.R.C.S. (Edin.), F.R.B.S., F.Z.S., Late President of the British Gynecological Society, etc., etc., one of the great early surgeons; before the Royal Commission on Vivisection, 1907:

"14730. Have you ever yourself practised vivisection?"

"Never. . . ."

"14803. You could not mention to the Commission any case in which you are satisfied that useful knowledge has been obtained by the experimental method in medicine?"

"I am not aware of any. . ."

"14949. May I take it, then, that the very numerous physiological experiments on animals since then have taught us nothing?"

"I think so; that is my opinion."

(l) Sir Charles Bell, F.R.C.S., F.R.S., distinguished British Physiologist and Anatomist, noted as the discoverer of the distinct functions of the nerves:

"If anything could exceed the hideous cruelty of the whole business (experiments on animals), it would be the childish absurdity of the claims to benefit which are being constantly put forth by the advocates and promoters of the system." From *The Nervous System of the Human Body*, p. 217.

(m) Robert Bell, M.D., M.B., F.R.F.P.S., etc.; Vice-President International Cancer Research Society; Superintendent Cancer Research, Battersea Hospital; etc.:

"The only method of research that has yielded satisfactory results has been associated with clinical observation, and I am convinced that experiments upon animals have been the means of barring the way to progress." From *Parliamentary Debates*, Vol. 116, No. 69.

(n) Charles Clay, M.D.; President Manchester Medical Society, Senior Physician St. Mary's Hospital; etc.; called 'the father of ovariectomy', "the first to employ drainage in abdominal surgery"; authority on geology, archæology and numismatics, and outstanding in many fields:

a situation (*see* 20). If the brains, facilities, and funds (22) available for animal experimentation were applied to the search for other ways, and to the

"I challenge any member of my profession to prove that vivisection has in any way advanced the science of medicine, or tended to improve the treatment of disease. From a letter in *London Times*, 31 July, 1880.

(o) Walter R. Hadwen, M.D., L.R.C.P., M.R.C.S., L.S.A., J.P.; First Prizeman in Physiology, Operative Surgery and Forensic Medicine; Superprizeman and Double Gold Medalist in Surgery and Medicine; etc. etc.:

"Failure and disaster, disease and death, due to misleading results from vivisection have strewn the whole course of this horrible practice during its long, black history...." From a letter to Mrs. C. P. Farrel, Jan. 28, 1923.⁴

(p) Dr. Charles Bell Taylor ("Taylor of Nottingham"); F.R.C.S., Hon. Surgeon, Nottingham and Midland Eye Infirmary; Fellow Medical Society London; President Parisian Medical Society; Senior Gold and Silver Medalist, College of Surgeons, and Prizeman Univ. of Edinburg; "the most distinguished eye specialist of his time";

"The public would not tolerate vivisection for a day if they did not believe that the animals were rendered insensible, and the plain fact is that they are not rendered insensible.... It is the public who are anaesthetised—it must be so; for in many experiments, to render the animal insensible would be to defeat the object of the operator.... No good ever came of vivisection ever since the world began; and in my humble opinion no good ever can." From an address to the Medico-Chirurgical Society of Nottingham, November 16th, 1892.

(q) Dr. George Wilson, M.D., LL.D. (Edin.), F.R.S., D.P.H. (Cambridge); Medical Officer of Health for Warwick, Member of the Royal Commission on Vivisection; President of the State Medicine Section of the British Medical Association; "probably the leading authority in Great Britain upon Preventive Medicine":

"I am prepared to contend that the indiscriminate maiming and slaughtering of animal life with which these bacteriological methods of research and experimentation have been inseparably associated, cannot be proved to have saved one single human life, or lessened in any appreciable degree the load of human suffering. I have ventured to make that pronouncement before, but in halting academic fashion; I reiterate it here and now with the strongest and fullest conviction." From his Presidential Address to the British Medical Association when occupying the Chair in Department of State Medicine, 1899.

(r) Dr. Forbes Winslow, M.R.C.P., LL.D. (Cantab.), D.C.L. (Oxon.). Founder of and Physician to the British Hospital for Mental Disorders in London; Physician to North London Hospital for Consumption, etc. etc.; "One of the world's greatest authorities on mental diseases."

"Ladies and Gentlemen, vivisection is against all the principles of medicine, and it is against all the principles of religion.... As a result of forty years experience, I say that vivisection should not be tolerated." From an address at Caxton Hall, 1910.

"In my opinion vivisection has opened up no new views for the treatment and cure of diseases. It is most unjustifiable and cruel, and in no way advances medical science." "Report on Vivisection", American Humane Association.

(21) Doctors who openly oppose animal experimentation have everything to lose and nothing to gain but a clear conscience; they pay a very substantial price for their convictions. For this reason, there are far more opponents of vivisection in the medical profession than will ever be known until the whole fallacious system begins to fall under the weight of its own errors.

Reporting on a poll of regular physicians replying to questionnaires on vivisection sent to all members of the American Medical Association, the *Christian Science Monitor* (Boston, April 9th, 1932) pointed out that 34% or 1238 out of 3632 who replied, "either declared themselves opposed to vivisection or stated that they did not think the practice of animal experimentation justified by the results...."

"One significant feature of the report was the fact that although no signatures were asked, 69 of the 374 physicians registering unqualified opposition to vivisection voluntarily gave their names and addresses. Others declared that they would like to go on record publicly but could not risk expulsion from their medical societies," the paper reported.

There are many examples of professional ostracism, which reminds one of the remarks made by Dr. Wm. D. Johnson that "The very ardor with which we defend it (medical science today) shows our suspicion of it. Men fight for their beliefs,

development of systems not dependent upon cruelty and more suited to this country (23), superior methods are likely to be discovered. It has never

not for the things they are sure of." Animal experimentation is a religion for many medical men today, and just as morality is sacrificed in its pursuit, justice and truth are sacrificed in its defence.

For example, there is little doubt that Dr. Walter Hadwen had the qualifications, the force of intellect and character, and the therapeutic ability to be acknowledged for what he actually was, one of the leading lights of his profession, but other leading members of the profession saw to it that he lived and died without the recognition he deserved because he dared to oppose animal experimentation.

Then there was Dr. Charles Creighton who was acknowledged to be a very learned man and the leading epidemiologist of his day. *Lancet* published an obituary after his death in which it is admitted that "This issue between Creighton and general professional opinion on vaccination was not thrashed out there and then as it ought to have been. It was deemed more expedient to drop Creighton into oblivion and if he was ever referred to at all it was as 'Creighton the Anti-Vaccinator'. All his other work was forgotten in the debacle, and he was a doomed man."

Dr. J. F. Brailsford (see 20a) mentioned in his second article in the *Birmingham Post* March 17th, 1955, "... some (young doctors) recent it (vivisection), some have lost their chances of promotion by doing so. Even the posts of senior men of long service have been abolished by subterfuge when they indicated their disagreement with a policy which substituted science for clinical medicine."

"Any doctor who dares to criticize animal experimentation publicly", as Dr. A. V. Allen pointed in the *New York Journal American* (February 15th, 1948), "lays himself open to serious condemnation by various highly placed members of his own profession. But the time has come, it seems to me, when those many reputable physicians who disapprove of vivisection must gather up their courage and denounce its evils without fear" (see 20j).

But fear is not so easily overcome. There gigantic vested interests connected with animal experimentation, both as regards finance and reputations. These statements, coming from reputable medical men, show why so few doctors dare to express their real opinions and why those brave enough to stand against animal experimentation are likely to be absolutely truthful. It is only the power of honest conviction outweighing all other considerations that could force a man to oppose it openly.

(22) The enormous sums spent on animal experimentation in all the countries of the world stagger the imagination. It is impossible to estimate the amounts involved. Leaving alone the private research and testing connected with the multi-million dollar drug firms, which is a big field in itself, there are the large grants of the various Governments for "Medical Research", a major portion of which is spent on animal experimentation in all fields. Besides this there are the many funds raised by public donations, given by charitable foundations, etc., many operating in the millions of dollars or pounds.

The extent to which brains, facilities, and funds have been applied to animal experimentation is nowhere better indicated than in *A Survey of the Case Against Vivisection*, which is signed by forty six scientists and prefaced by George F. C. Searle, Sc.D., F.R.S.: Under "Conclusions" we find:

"No one who fairly considers the facts can deny that the primary charge against vivisection (cruelty) stands beyond confutation. The defence based on the use of anaesthetics and the denial of suffering utterly breaks down. There remains the plea of utility to man the sole defence which will be received at the court of the public. It is fair to say that no form of research—here using the word in the most comprehensive sense has ever been more favoured than vivisection. It is protected by law and encouraged by the State; it is subsidised at home and from abroad; it has been relieved from all restrictions which would deny that 'freedom of research' ever reiterated as essential; it is accorded a degree of popular advertisement unknown in any branch of special science; it has secured the support of commercial interests, and its practice is, and has long been, international. Yet despite all these advantages, in a demonstration on a colossal scale over many years the most signal achievement of vivisection has been the proof of the failure of its methods and the falsity of its principles. Great benefits to humanity are claimed for the laboratory, but after fifty years' systematic vivisection humanity still awaits those benefits. On the one hand are promises; on the other, no cure or abatement, but a continued and alarming prevalence of the most dreaded afflictions which assail mankind."

been tried (24). If this country decided once and for all to use only non-hurtful means to the end of physical well-being, in a decade or two it would be leading the world in the healing arts, for what man who has studied human history can deny the practical as well as the moral value of rectitude, in means and ends both, but most especially in means.

Let us suppose, however, that we accept the claim of the supreme utility of animal experimentation and the oft-repeated contention that the improvement in general health is due to such work rather than the great developments in hygiene, sanitation, cleanliness, clinical experience and standards of living. Even then, is utility the absolute criterion in judging right and wrong? No great man ever considered utility where right and wrong were involved. As the well-known American writer, Mark Twain, put it, "I believe I am not interested to know whether vivisection produces results that are profitable to the human race or doesn't. To know that the results are profitable to the race would not remove my hostility to it. The pain which it inflicts upon unconsenting animals is the basis of my enmity toward it, and it is to me sufficient justification of the enmity without looking further."

For both the individual and the nation the question of animal experimentation is a question of morality. John Cowper Powys, British author and lecturer, clarified the issue when he wrote, "Modern scientific men in their biological inquiries have deliberately placed themselves *outside the human*

(23) One of the strange things about our country's health programme is the overriding position of the allopathic system of medicine, which, by reason of its expense, letting alone any other considerations, is unsuited to Indian conditions on the whole. The real power in each project for the development of the indigenous system usually seems to be in the hands of a person who has allopathic training and an allopathic mentality. The whole approach to healing in the indigenous systems is different, as it is in homeopathy, naturopathy, and other unorthodox Western systems; and in spite of these systems being labelled "unscientific", if not worse, by those whose training precludes the appreciation of any other approach but their own, they seem to have much successful therapeutic work to their credit. They do not depend upon animal experimentation. It is much to be desired that they play an increased role in this country's health programmes, for, in addition to the cruelties thereby obviated, they are more suited to the temperament and the purse of the people.

(24) Some slight evidence on this point is available in the lives of individual scientists who have eschewed vivisection. Space permits the mention of only one case as an example:

Foveau de Courmelles, M.D., Paris; President de la Soc., Ind. de Medicine Physique; Vice-President de la Soc., Francaise de Hygiene; Directeur de l'Annee l'Electrique; According to the *New York Medical Journal* (July, 19th, 1922) "The first to apply the roentgen ray for the treatment of uterine fibroids."; from a letter to Mrs. C. P. Farrell, 1922:

"I have never been able to carry on vivisection and, to see it done in the course of my studies was extremely painful to me.

"I have therefore searched for new scientific means whereby physiology could be worked out without recourse to the suffering, sacrifice, pain, and death of our 'younger brothers', and, I think I have found some fruitful ones. Electricity and X-ray allow indeed, the discovery and the rectifying even of certain mistakes brought about by vivisection, which show the inferiority of this ancient and nefarious procedure of scientific investigation...

"From the therapeutic side, we owe nothing to vivisection and on the classical side, I have pictured the radio therapy of fibres and the radio therapy of cancer.

"I beg to be excused for citing all of my work and for citing too much, but I only do it to show the uselessness of vivisection in all fields of medicine, and also to assert, as in my book of 1911 (*La Vivisection, Erreurs et Abus*) that up to now, one has been too much left to possible erroneous experiments drawn from the torture of animals."

conscience. What they are really doing is undermining the supreme achievement of evolution, namely, the spiritualizing and sensitising of the general conscience. The value of a man cannot be judged by the number of diseases he escapes. The value of a man is in his human qualities—in his character, in his conscience, in the nobility and magnanimity of his soul."

When the Hon. Percival P. Baxter, then Governor of the State of Maine (U.S.A.), was asked to support vivisection, he requested that the following words (among others) of the Hon. Stephen Coleridge be read as stating his position:

"What man, fit to be named among the clean and decent, let alone the noble and courageous would willingly and consciously gain alleviation of pain, or even life itself, by the pitiless torture of the dog that loves and trusts him?"

"Who will confute us in this before the conscience of mankind? Is the ladder to a better world to be climbed on rungs of animal torment?"

"Never was a simpler issue. On the one side are promises, entirely carnal and physical. We need not discuss whether these promises be false or true; they touch nothing but the human body, its flesh and its bone, its trunk and its stomach.

"On the other side are ranged the heart and conscience and soul and the whole spiritual well-being of man. . . .

"In the name of God, the compassionate, the merciful, we fight this cause, and the whole world shall not put us down."

Few people, even amongst the medical professions ordinary practitioners, know what animal experimentation entails and why persons who have investigated the matter often become such ardent antagonists in the fight against it (25). When doctors try to calm the stirring of the "ignorant sentimentality" of the public, they frequently point out that most experiments are only inoculations giving a mere pinprick of pain, that there is no real suffering involved in animal experimentation (26), that hundreds of people are saved by the sacrifice of one animal, and in any case, "which would you rather save, your baby or a dog."

(25) An example of the kind of feelings aroused in people who come to realize what is actually taking place in research laboratories all over the world is contained in a protest by Dr. Johannes Ude, Professor at the University of Graz, at the granting of the Newman Foundation Prize to Dr. Carrel. (Cardinal Newman was an anti-vivisectionist, while Dr. Carrel is a vivisectionist.): "Either the vivisectionist does not know what he is doing, then he is an imbecile and should be shut up in a lunatic asylum; or he knows perfectly well what he is doing, then he is a criminal and should be sent into a penitentiary. Vivisection is a diabolical, satanic crime, which can only be committed by a man, who has no heart and does not know the commandment of Love."

(26) It seems incredible that anyone obviously in the position to know what is going on in the laboratories could lie so boldly as to publicly deny the suffering of animals which is apparent on nearly every page of some of the medical journals dealing with experimental subjects, and that in the face of numerous statements to the contrary by experimenters themselves. But doctors go on making such statements as some did before the committee and a number did in discussing the matter with me. It can only be assumed that in *some* cases this is due to genuine ignorance. One or two examples of public statements must suffice:

Herman L. Kretschmer, Clinical Professor of Surgery, Rush Medical College, University of Chicago, wrote in black and white, "Experimentation does not mean pain for the animal because all investigations are done under careful anesthesia. . . ."

Stuart Graves, University of Alabama School of Medicine: "Experimental animals are not allowed to suffer. No operations or procedure that might prove painful are done except with the animal anesthetized." Both quoted from "Animal Experimentation", p. 10.

Statements like this remind one of George Bernard Shaw's remark that, "When the public conscience stirs uneasily and threatens suppression, there is never wanting some doctor of eminent position and high character, who will sacrifice himself devotedly to the cause of science by coming forward to assure the public on his honour that all experiments on animals are completely painless. . . ."

Regarding the last point a great deal has been said on both sides of the question (27). The misleading over-simplification which this kind of argument represents is typical of the arguments used to support vivisection. Dr. A. V. Allen (*see* 20j) has this to say about such logic:

Some doctors, fortunately, are more honest. As Dr. Alexander Glass of the University of Pennsylvania said, "I have many good friends on either side (of the vivisection controversy), and their opinions demand respect. As a student of medicine, however, and, later, a veterinary practitioner and teacher, with many years of intimate contact with, and observation of, the dog in health and disease, I ask the vivisectional side of the controversy at least to omit the old gag that 'the dog suffers no pain.'"

Dr. R. Fielding-Ould remarks on this point that "We have ample evidence, without giving instances here, that vivisection experiments involve the most intense and prolonged suffering for countless animals every year. This suffering has been admitted by the Medical Research Council and is evidenced by the publications of the vivisectioners themselves.

"Confronted with the revolting facts, the vivisectioners fall back on the argument that the end justifies the means. Such has been the argument through the ages to justify practices upon which we now look back with shame and horror. It might with as much excuse, be used to justify the unspeakable barbarities of Belsen."

(27) The implication of this argument is that experimenting on dogs has resulted in saving the lives of babies. Except for the much quoted case of the "blue baby" operations, which demonstrate as well as anything the non-importance of vivisection, this implication, as far as we can determine, is without any foundation whatever. In fact, considering the number of healthy, normal children whose lives have been lost by vaccination and inoculations derived from vivisection (*see* 33, 77) and by direct experiments (*see* 28) the record almost seems to point in the opposite direction.

As regards the famous blue baby controversy, the story is complicated, but it demonstrates two important points:

- (1) It is possible to try out a surgical technique on dogs and then when successful on dogs, try it out again on human patients. It is also equally possible, and apparently *equally successful*, for a good surgeon to try out a new surgical technique on human patients straight away.
- (2) There is international cooperation between doctors to bolster the cause of animal experimentation, to the extent that it would almost give the impression, at times, of a little international "coaching".

Briefly, the story is as follows: Dr. A. E. Blalock, through vivisectioning dogs and then operating on a number of genuine human cases, developed an operation (coronary anastomosis) to save babies from the mal-effects of a certain type of heart defect (congenital pulmonary stenosis). (*See Annals of Surgery*, Vol. 124, No. 5, p. 882). This being, perhaps, the only truly practical technique ever to be directly attributable to animal experimentation, it has been widely publicised by the various research defence societies.

However, Dr. R. C. Brock in England developed another operation (valvulotomy) which seemed to provide a more permanent correction for the blue baby heart defect, and pointed out potential "drawbacks" of the Blalock operation. (*See British Medical Journal*, June 12th, 1948, p. 4562). In a public statement he has confirmed the fact that he *had not used animals* before beginning his blue baby work.

As will be noted in our Report, the English law does not permit the use of animals for gaining "manual dexterity" for the very simple reason, as with other aspects of vivisection, that it does more harm than good. As mentioned in a review in the *Medical World* (Sep. 27, 1935, p. 144): "We maintain that vivisection of animals is not by any means the only practical training for surgery. Practical technique in surgery can only be acquired by operations on the human body, anything short will never suffice." Early, great surgeons, like Sir Frederick Treves and Professor Lawson Tait were definite on this point. The former said, "Many years ago I carried out on the Continent sundry operations upon the intestines of dogs. but such are the differences between the human and canine bowl, that when I came to operate on men I found that I was hampered by my new experience. that I had everything to unlearn, that my experiments had done little but unfit me to deal with the human intestine." Lawson Tait said, "Vivisection has done nothing for surgery but lead to horrible bungling." Numerous authorities on this point can be quoted, but the most important and conclusive point is that British surgeons, who have been deprived of surgical practice on animals all this time, still rank among the best.

"Another form of deception is the frequent appearance or magazine articles lauding vivisection and claiming that practically everything worthwhile in medicine was due to animal experimentation. I would grant research men the right to defend the practice in this manner if they would stick somewhere near to the truth. But nearly all of these articles are full of unsupported statements such as 'If it were not for vivisection, millions of babies would die annually.' This is the sheerest nonsense and every such claim can be easily disproved by anyone who takes the time to check the facts. Comparable logic runs about as follows: 'We tested Army blankets by wrapping twenty dogs in them and then throwing them into the refrigerator to see if they would freeze. Therefore, if it were not for animal experimentation, all of our boys in the Army would have frozen to death.' Such statements are an insult to the intelligence of any thoughtful man."

Those who are opposed to animal experimentation generally point out that, in any case, the question is not "dogs or babies", but "dogs and babies", since experimenters have used children also far more than is generally realized, and adults have also been used for experiments without their knowledge or without their consent (28). It would be better if neither

Considering everything, it would hardly seem that the use of animals was necessary for the development of a successful blue baby operation, any more than it seems to be necessary for any developments in surgery.

It is interesting to note that later, Dr. Brock, evidently attempted to assist Dr. Blalock in his fight against the anti-vivisectionists over these operations. Having, as it were, by his own good work inadvertently damaged somewhat the rare propaganda value of the Blalock operation as a proof of the old standby, "dogs or babies", he came out with a statement released officially by the N.S.M.R. (see 39) in December, 1949 in which he, with some appearance of inconsistency, insists on the importance of animal experimentation in the development of both these operations. The statement makes a dubious impression when compared with earlier statements made by the same two doctors. (For comparison of statements and general details of the controversy, see "The Blue Baby Controversy", National Anti-Vivisection Society, Chicago).

(28) The use of adults, of course, is becoming commoner every day. Anti-vivisectionists have always held that the steady increase in animal experimentation, and the mentality which goes with it, will inevitably lead to more and more human experimentation, rather than making it unnecessary as medical people claim. The experimental mentality, if it can be diverted from its own artificial mal-creations to consider natural problems, tends to view the patient as a mere "case". There is always, for this reason, an inherent tendency, born of animal experimentation, to consider the advantages to knowledge which can be gained from the case and a further inherent tendency, also born of animal experimentation, to disregard or even be unaware of the needs and suffering of the patient. The temptation to experiment on human beings develops directly from these tendencies, and the frequent urge to do so without the knowledge of the patient is for the simple reason that the patient cannot appreciate that mentality. In other words, none of us like to be treated as we allow the experimenters to treat animals.

Anti-vivisectionists have always pointed out that, since we vivisection animals because they are, to us, expendable, whenever and wherever human beings of any class become expendable experimenters will immediately start experimenting on them. This was amply demonstrated in the case of Nazi Germany, to the horror of the whole world, except perhaps the experimentalists (see below). In this case, the victims in the concentration camp were experimented upon without their consent, but they knew what was happening.

In the case of the use of orphans, lunatics, convicts, poor patients, ordinary patients, and children experiments are sometimes conducted without the consent and without the knowledge of the persons experimented upon. Naturally, these experiments are not much publicised as a rule, but there are quite a number on record, far too many to mention here.

We may take a few examples, beginning, for instance, with experiments on lunatics. Long ago Dr. Forbes Winslow, the expert in lunacy (see 20r), wrote a letter to the *South Wales Daily News* (letter republished in *The Abolitionist*, July 1st, 1911). In that letter, he lists "The following deductions (which) may be arrived at from the

animals nor children were used for experiments and the vast mass of talent and funds used in such research were diverted to developing other methods

address I had the honour of delivering at Cardiff:" Here follow several points establishing that no knowledge derived from vivisection has helped in the diagnosis or cure of mental illnesses. Then he continues, "5. That vivisectioning animals is only a lame excuse for experiments on and vivisectioning human beings. This I emphatically declare is done, although unknown to the Commissioners of Lunacy." Does this seem to be back in the days when such things might be happening?

If so, read in *The Medical World* (15-8-47) from a letter by G. Tayleur Stockings, M.B., about mental institutions today:

"..... I should like to draw the attention of other members of the Union (Medical Practitioners' Union) to experiments of a similar kind inflicted on human beings in mental hospitals....."

"Some months ago I resigned a senior appointment in the mental hospital service to enter general practice, disgusted at the cruel practices I have witnessed in some of these institutions. The principal of these... is the forcible infliction on certified mental patients against their will, of unnecessary and mutilating surgical operations, usually leucotomy, and wholesale dental extractions. During my mental hospital experience, I saw a number of such unfortunates subjected unwillingly to procedures of this kind, although perfectly capable of expressing refusal, in a manner smacking unpleasantly of the notorious experiments of the Nazi concentration camps....."

"We have been informed on numerous occasions that the second World War was fought to ensure that such things could never happen here, and to extricate forever that form of ideology which inculcates contempt for human life and the rights of man. Yet this thing has taken firm root on British soil, and appears to be becoming a regular practice in certain mental institutions....."

Experiments on mental patients have been going on for a long time. Even when the permission of relatives is obtained this is a dubious procedure. Many such patients have had no contact with friends or relatives for years, and if they die or are made worse in some permanent way, who would know the difference? The victims themselves, if they survive, cannot make any effective protest, and even if they understand what is happening and protest beforehand, their status as lunatics renders their objections futile. And just before the discovery of some technique (like the new tranquilizers) which might help to cure a patient he may be turned into a permanent invalid by some experiment.

For example, Dr. G. Frank Lydston, formerly Prof. in the University of Illinois, writes of experiments on sex-gland implantation in animals (*New York Medical Journal*, Oct. 17, 1914 and Nov. 7, 1914), and further experiments on himself, volunteers, and mental patients obtained through the "Courtesy of Dr. George Ledinger, Superintendent, Illinois State Hospital for the Insane, Chicago". Among his "subjects" were a woman of 26, another of 60, and an old man of 75. There is no point in going into the details of this disgusting, unjustifiable experiment, but he suggests, "In passing" that "it would be interesting to study the results of cross implantation of the sex-glands of males and females". With his appetite for experimental investigations fully aroused, Dr. Lydston says that, "Every effort should be made so to amend our laws that viable tissues of all kinds, notably internal secretory glands shall become available to science."!

Experiments on babies suffering from mental diseases are reported in the *Journal of Physiology* for March 15th, 1948, and we find mention of a vaccine test on feeble minded children in the *Chicago Daily Tribune* of May 3rd, 1955, p. 2, col. 3. The latter article mentions tests of a "live" polio vaccine by Dr. Albert B. Sabin, and states, "It is being tested on children in a California institution for feeble minded, after having undergone long trials on animals". If animal tests are sufficient to establish its safety, why couldn't the doctor have tested it on himself and his friends, or volunteers, rather than feeble minded children who cannot object.

There was considerable discussion about a year ago (*i.e.*, 1956) of a British insanity experiment, of which a report was made by the British Royal Society of Medicine. In the same way that drugs are tested on normal animals (*see* cat experiment under "Inoculations" in this Note), they were tried on a number of mental patients. Drugs were injected directly into the brain, or a metal tube was embedded in the skull and left there to facilitate injections. The reaction of normal, or even insane, animals to drugs is hardly likely to bear any relationship with human insanity, and it seems likely that the experimenters had no way of knowing whether or not these drugs would kill the patients, or whether they might not destroy the last glimmer of hope

of research and to studies of a clinical nature with natural cases of disease and injury. With all the sick and suffering human beings in the world whose

for the recovery of some of the unfortunate victims. There is nothing to show that the chemicals used were not chosen more or less at random. The number of injections given ran almost to sixty in some cases, and in the end all the patients were at least as badly off as they had been, and some were far worse. The medical report reads, "With large doses, patients show emotional stress so that they would become over-active and displayed impulsive and sometimes even violent outbursts. Some became very agitated". In several cases blood vessels in the brain were punctured and epileptic attacks followed. Commenting on the report, Chapman Pincher, scientific writer for the *London Express*, wrote, "The idea of tinkering with a person's brain without his consent when the immediate purpose is not to save his life seems to infringe the whole concept of the dignity and sanctity of man".

Other public institutions have also supplied "material" for experiments. When Udo J. Wile, M.D., of the University of Michigan, decided that it would be interesting to "Produce Experimental Syphilis in Rabbits with the Brain Substance of the Living Paretic" (*Journal of Experimental Medicine*, February, 1916), he was able to get six paretic patients placed at his disposal in the Pontiac State Hospital, Michigan. Consent of the relatives was not obtained since "paresis was killing the patients anyway". Under local anaesthesia, holes were made in the skulls of these six unfortunates, brain material was extracted and injected into a rabbit which died some weeks later. The conclusion? "Spirochaetes from the living paretic brain easily infect rabbits with experimental syphilis".

Dr. Robbert Dunstan protested in *The Daily Herald* (Nov. 3rd, 1923) against experiments upon six criminals in Ceylon "lying under sentence of death".

Convicts have undoubtedly been used secretly in such experiments a good deal, but more recently experimenting on convicts has become a considerable affair and is done on a volunteer basis. To what extent a convict can volunteer as a free agent unhampered by various pressures of a psychological nature it is difficult to determine. In any case, in 1956 experiments were announced which are to be conducted by the Sloan-Kettering Institute and the Ohio State University in which cancer will be given to ninety-six convicts for experimental purposes. In more than fifty years of cancer research, mainly vivisection, experimental medicine has discovered several hundred "inciters" that can cause cancer, but nothing to cure it, and one wonders if there is not enough cancer in the world already. Another instance, in which the victims could not volunteer, was reported in 1956. This time experiments were on babies six months old or less, whose mothers were inmates of the State Reformatory for Women at Clinton, N. J. and volunteered their babies.

In the past some of these human experiments have reached the public ear with some distressing results for the experimenters. Dr. Neisser, who inoculated young girls with syphilis was hissed in his own city (Breslau, Germany), but when he went to England in 1911, he was given a gold medal by the West London Medico-Chirurgical Society. Hideyo Noguchi, Associate Member of the Rockefeller Institute for Medical Research, who, through the "courtesy" of the physicians in charge, was able to inoculate 146 non-syphilitic human beings in New York's largest hospitals and institutions with the germs of this horrible disease (*Journal of Experimental Medicine*, Dec. 1st, 1911), aroused a storm in the nation's press. Despite the sterilization of the germs, no authority could say what the ultimate effect of such inoculations would be, and Dr. Noguchi himself admitted that the results of his experiment "remain to be determined".

Two weeks after a similar vaccine had killed Jackie Baldwin (age 2) in Healdsburg, California, Dr. Maurice Brodie, Assistant Professor of Bacteriology at New York University announced a plan (*Philadelphia Inquirer*, July 8th, 1934) to inoculate 12 orphans with "monkey fluid", a polio vaccine made from the ground up spinal chords of monkeys. About the same time Dr. John A. Kolmar of Temple University was quietly experimenting on Philadelphia orphans with a similar serum of his own devising. Both these cases aroused a strong reaction in the press, although the doctors claimed they had tried out the serums on themselves first, which would not, of course, prove it was safe for children.

Testing inoculations and vaccines on children has been done on a large scale, and when the ill-effects are by no means predictable, or definitely dangerous. In 1908 the Calmette Test (conjunctival variety), which means introducing a solution of tuberculin in the eyes, was tried out on 126 infants of less than eight years of age in the St. Vincent's Orphanage in Philadelphia. In describing this experiment the doctors admitted (*Archives of Internal Medicine*, Dec. 15th, 1908) that "it" (the

condition cries out for direct curative efforts and gives ample scope for the observation and study of all kinds of ailments and mutilations, what does the

conjunctival test) "has the great disadvantage of producing a decidedly uncomfortable lesion, and it is not infrequently followed by serious inflammations of the eye, which not only produce great physical discomfort and require weeks of active treatment but which may permanently affect the vision and may even lead to its complete destruction". This same experiment was performed about the same time on 500 patients coming to the Phipps dispensary of the Johns Hopkins Hospital.

Dr. L. Emmett Holt of Columbia University was also doing tuberculin tests on babies, not orphans this time, but regular ward patients, on whom he performed one thousand tests. He writes (*Archives of Pediatrics*, Jan. 1909): "The observations included in the following report were all made at the Babies Hospital upon ward patients. *Very few children were over three years of age.* The ophthalmic test (eye test) (was done) 615 times; in most instances one test only was made in a patient, although in a few children, where the results were questionable, the test was repeated. . . . the hands of the children were confined during the first twelve hours to prevent any rubbing of the eye. There is usually congestion of the conjunctival with some swelling and an increased secretion of mucus, which is frequently very abundant, so that the lids are adherent. I am aware that serious results with the ophthalmic test have occasionally been reported by other observers". Did that keep Dr. Holt from trying it on babies? No. What is more, some of the babies were seriously ill and some were dying! He reports, "In no cases were positive reactions obtained in *dying children or those suffering from extreme prostration*". Then he tried the skin test on 217 children and found it "troublesome of application". "In several instances", he reports, "high temperatures were accompanied by discomfort, restlessness and other symptoms indicating a constitutional disturbance of some severity." In summing up he mentions "that *dying children or those who were extremely sick* did not, as a rule, react to any of the tests". And what is the result of all this suffering inflicted on already sick and helpless little babies? "The results with any test cannot therefore be regarded as conclusive". (My italics).

Stop and think, for a moment, as a human being, not as a "scientific experimentalist". A dying baby in need of the tenderest medical care and loving attention to soothe its distress has its hands tied and a "burning" fluid put in its eye—all to provide another "case" in the experimenter's book! But the tuberculin story goes on.

In 1912 to 1914, Dr. von Ruck was experimenting with a vaccine of his own concoction, resembling tuberculin, on 339 orphans in Thomasville, N. C. However, the von Ruck serum was doubted after vaccinated guinea pigs yielded more quickly to tuberculosis (which would not necessarily prove anything), and the Senate authorized an investigation. The investigator, Surgeon A. M. Stimson of the U.S. Public Health Service said (Document No. 641): "It is generally admitted that tuberculin is a dangerous thing; that its injudicious use may result in catastrophe". But did all this stop tuberculin tests? Certainly not. In 1930, 249 children in Lubeck, Germany were "immunized" with a tuberculin-base vaccine. Of these, 73 died and many more were rendered seriously ill. At that time the late Professor von Piroquet, the greatest school medical authority of his time, declared that, "The tubercle bacillus can establish itself in the organism through the Calmette system and the result cannot be foretold. Such a dangerous process cannot be approved or tolerated".

Yet today that very process is not only tolerated and approved, but rigorously promoted in the mass inoculation programmes with B.C.G. ("C" for Calmette), which contains *living* micro-organisms. The editor of *Lancet* wrote (May 24th, 1930, p. 1138): "The reintroduction of the use of an attenuated living virus in tuberculosis was described by Prof. McIntosh as a retrograde step. Who knows, he said, for how long an attenuated bacillus can lie dormant and then assume its former virulence". We know on the best medical authority that B.C.G. is not a full protection against T.B., and that it may produce serious complications including death (*British Medical Journal*, April 30th, 1955, p. 1076), and some authorities claim that it has no protective value whatever (e.g., Dr. Nils Wangenstein) and has "unmeasured and uncontrolled dangers" (reported to be the comment on B.C.G. by a high American authority in *Time* magazine). Yet tests on children continue, under compulsion, and no longer in the hundreds or thousands, but in the millions. And comparative tests are still under way on orphans. In 1955 it was reported that an experiment to compare B.C.G. vaccine with a vole vaccine was made, with the consent of the local authority, on children at the Orphan Homes of Scotland, Bridge of Weir. This resulted in the development of consequences described as "distressing, painful, and possibly dangerous" in some of the children. Please note that all these experiments refer to only one type of inoculation.

experimenter do? He closes the laboratory door, takes *healthy* creatures, fills them full of diseases and poisons, mutilates and tortures them, and

Almost every infectious disease has some time or other been produced, or attempted, experimentally in unsuspecting victims. One Kundratitz (*British Medical Journal*, Jan. 17th, 1931) experimented on 48 children to produce Zoster (shingles, a painful disease) by inoculation. Dr. Rodermund of Milwaukee admits: "I sprayed poisons of diphtheria, small-pox, etc., into the nose and throat" of 17 youthful persons. "Of course, I could not let them know what I was doing. I was supposed to be treating them for catarrh of the nose and throat". It was reported in 1955 that babies in a Bristol maternity hospital were given various preparations of penicillin, not to benefit them in any way, but for experimental purposes. Occasionally penicillin produces bad side effects, and the consent of the parents had not been obtained. In the *British Medical Journal* for Jan. 19th, 1935, p. 103 is a description of an experiment on 642 children for "An Evaluation of Modern Diphtheria Prophylactics".

In the *British Medical Journal* (July 5th, 1952) we find that "Henle observed 15 children who were artificially infected with mumps virus. Six of them developed clinical mumps".

But inoculations are only one aspect of experiments on children and adults. In 1955 it was reported that a London Hospital Board had decided to conduct an experiment on 1,000 children under its care, all presumably sent to the hospital to have their tonsils removed. 500 were to be operated on as "controls" so that a comparison with the other half of the group would show whether removal of the tonsils is beneficial or not. No mention was made of whether the parents or the doctors prescribing the operation had consented or not, and a correspondent to *The Times* (7-6-55) questions the ethics of the whole proceeding. Dr. Hines Roberts in the *Journal of the American Medical Association* for Aug. 15th, 1925, "The Spinal Fluid in the New-Born", states that 426 babies were subjected to lumbar puncture. Yet we find about the same time (same journal, Sep. 1st, 1928) statistics showing that deaths by lumbar puncture were by no means uncommon.

Even that hideous skin infection pellagra has been given to human beings by "oral injection of epidermal scales from pellagrous skin lesions". (Public Health Reports, Nov. 17th, 1916).

Feeding experiments have also been conducted on children in the most cruel manner. Back in 1914, Dr. Alfred F. Hess and Mildred Fish took 150 healthy children of the Hebrew Infants Home in New York City and replaced the institution's nourishing diet with one whose express purpose was to create the disease called scurvy. The daily reports (*American Journal of Diseases of Children, Journal of Pediatrics* and others, 1914—1922) give details of the gradual wasting away including increasing pallor, loss of weight, swelling in the knees, etc. When any baby reached the point of collapse, Dr. Hess, fearful that it would die, prescribed a good diet until the baby rallied, and then resumed the scurvy diet. After 2½ years of experimenting, Dr. Hess says of this diet, "Even when a child recovers it may never regain its normal health—it may remain pale and never regain its weight in spite of a liberal and well-balanced diet".

Is this too old? Things like that wouldn't happen now? A similar experiment, also for Vitamin C. deficiency, is reported in the March 1950 issue of *The Journal of Clinical Investigation* (Vol. 20, No. 2, p. 209). 13 originally healthy babies ranging in age from 6 to 31 days were deprived of all Vitamin C for periods up to 69 days. 12 other babies from 9 to 195 days old who were patients with serious diseases (bronchopneumonia, hemorrhagic disease of the young, etc.) were deprived of Vitamin C for periods up to 28 days. Since scurvy and decalcification of the bones can result from such deprivation, 10 of the babies were periodically X-rayed for evidence of decalcification. The experimenters mention that the X-ray pictures showed "essentially" negative but add, "it is well-known (that) a prolonged period may intervene" before the evidence of scurvy manifests itself by X-ray. They do not mention anything to suggest that these deprivations could do aught but undermine the health of these babies.

Another particularly revolting type of experiment on children comes in the psychological class. In a review in the *Medical Officer* for April 13th, 1956 of a book called "The Evolution and Growth of Human Behaviour" by two American scientists, the reviewer remarks of the book:

"The second ground for criticism is rather unusual and might be considered irrelevant. It is that the nature of the experiments conducted on babies seem to be unethical and indeed are very disturbing. In particular we may mention an experiment on a pair of twins which lasted for eight months during which time the babies were

then observes these *artificial* conditions in the *unnatural* environment of the

deprived of every emotional experience and any opportunity for normal activity which is usual during the stage of infancy.... The date of the experiment was 1935, and it is to be hoped that this kind will not encourage any other enthusiast to repeat such work, even if the law allowed them to do so."

Perhaps the reviewer was unaware of Dr. John Watson's book. "Behaviorism", which describes a series of experiments on babies from a few months old up to the age of three. Dr. Watson attempted to arouse fear reactions in his little victims by "pricking, burning, cutting the skin, irritation of the cornea or conjunctiva of the eye; injury to the lid itself (cutting, electric shock); jerking out the blanket suddenly from under a new-born infant just, as it is falling asleep; releasing a small boa-constrictor suddenly on a playing child; taking him to a darkened room and suddenly starting a bon-fire", and similar procedures. But he complains that "Parents who have children under observation, become excited when they learn of it". Aren't parents strange? So Dr. Watson concludes, "We must leave the subject of conditioning and unconditioning of emotional reactions until we can work upon a larger number of infants and work with them under better conditions of control".

But Dr. Watson's work, *naturally*, did not end there, but stimulated another experimenter, Dr. M. B. McGraw, who writes (*The Journal of Pediatrics* Vol. 15, No. 4, p. 485): "The only experimental evidence cited are those of Watson and the writer.... Watson reports (on sinking babies in water), 'Violent expression of fear - - - a cry, checking of breathing, followed by deeper inspiration and rapid, entirely uncoordinated, slashing of hands and feet...' The present report comprises a more intensive study. 42 different infants, ranging from 11 days to 2½ years.... the total number of observations on the 42 babies being 485.... The total number of observations on the same child varied from 2 to 51, the median being 10". Very scientific; and what are the significant findings? "...the movement of the extremities are of the struggling order. They clutch at the experimenter's hand, try to wipe the water from the face, or they may sink deeper into the water.... Often the ingestion of fluid is considerable, and the infant would cough or otherwise show respiratory disturbance when he was taken out of the water...."

These babies must have been from an institution, for it would be difficult to imagine any mother allowing her baby to be repeatedly submerged in a tank of water to frighten it out of its wits and take "observations" on its reactions. Modern child psychologists have discovered that even if a mother leaves a baby with someone else for a few days it may develop serious emotional complexes which cause considerable trouble in later life. One can imagine what dreadful psychological consequences such experiments will produce in children.

Why are so many of the human experiments on children, convicts, mental cases, etc.? Simply because, like animals, they are helpless unless there is a deeply concerned adult human to protect them and fight for them, which is obviously unlikely in the case of orphanages and children's homes, and often the case with long-standing mental cases and long-term or condemned convicts. The mentality which will experiment upon the helpless because they are helpless, which will turn over or utilize hospital patients for experimentation because the faith of patients and relatives is too unsuspecting—that mentality must be understood. It is important to be aware, at least in a general sense, of the type of human experimentation which has been and is going on. *For that is the mentality which animal experimentation fosters.*

Among many other experiments on humans, perhaps the most amazing, and the most perfect from the experimenter's point of view, was described by Dr. S. M. Sabotkin in *Everybody's Weekly* for November, 1952. Experimenters are always complaining, quite rightly, that what they learn from animal experimentation is either inadequate or misleading when applied to man. Quotations keep appearing like the following, which is found in the April, 1947 issue of the *American Journal of Physiology*: "The classical investigations carried out in the function of the spleen as a blood reservoir in dogs aroused the interest of other workers in similar experiments upon human beings".

The terrible experiment described by Dr. Sabotkin is what might be called an experimenter's dream come true. Its object was to keep Stalin alive for at least one hundred years and perhaps 150. It is described in great detail, but the part which concerns us is the "30 Stalins", who were very carefully chosen to be of the same race, type, build, and habits as Stalin. These men were made to live exactly like the dictator, even down to taking the same number of cigarettes, drinking the same drinks, walking the same distance and driving the same miles in a car. These men, like our

laboratory in order to reach conclusions which *seldom*, if ever, apply to man (29).

A study of the history of medicine will show that many of the great and *lasting* achievements in healing have been made by the strenuous efforts of people who were occupied in the attempt to relieve the distress of living,

laboratory animals, were meant as testing machines for various drugs, serums, and "elixirs of life" designing to keep Stalin alive indefinitely. The great experiment began in 1939 and eleven "Stalins" are said to have died of the treatment within the first three months, followed by three more before the end of the first year, but these "reactors" were replaced as they died, and the experiment went on. What was the result of this horrible experiment, in which all the conditions the experimenter wants were provided without the least fear of interference by "sentimentalists"? Stalin came from a family noted for longevity, and he was given only the safest serums, tested on human beings as perfectly alike him as could be found in a country where anyone could have been chosen. He died early. As the *Medical Press* pointed out (Dec. 16th, 1953, p. 607), "Not enough precise information is available for one to be positive, but it looks at least likely that Stalin owed his increasing decrepitude and recent death to the savant employed to keep him alive." The article goes on to point out that the theory on which the "Bogomolets serum" was based was wrong and suggests a better way of approach, with which, "Even if he had not been able to devise a satisfactory complex treatment he would at least have avoided killing both himself and his master so prematurely". Does the experimental mentality question the serum approach? No.

Would this most perfect of experiments make a confirmed experimentalist pause to consider whether the whole approach is wrong? When one reads something like the following, one doubts it:

Kenneth Mellanby, an English experimenter, wrote in the *Lancet*, Dec., 7th, 1946, p. 850: "At times I have felt a good deal of sympathy for some of those who were responsible for carrying out the experiments (the German prison camp experiments which shocked the world). Accounts leave little doubt that many of these so-called scientists were men of no academic standing, with no idea how to carry out an experiment, and some were no more than irresponsible sadists; all these deserve the appropriate treatment at the hands of the courts. But others were serious research workers. *If one were given the chance of using prisoners for experiments, which one believed to be of great importance and value to mankind, what would one do, particularly if government propaganda had convinced one that the victims were dangerous criminals anyhow condemned to death and likely to die in some particularly abominable manner? This is indeed a moral issue, and I am not at all sure what I would myself have done.* I have always been most fortunate, in that I have been able to obtain willing and co-operative volunteers when I have wished to carry out experiments on men, but there are many types of investigation for which one must hesitate to use such subjects. I believe that while capital punishment is retained, condemned murderers should be given the opportunity of *volunteering* to serve as subjects for such experiments. The question is rather different when victims are innocent prisoners, though to a keen research-worker with little contact with the world outside his laboratory and who believes what his government tells him, the answer may be simpler.

"The method in which these results should be published requires careful consideration. At all costs sensationalism must be avoided, and it might perhaps be as well to grade them as 'confidential' and make them available only to bonafide investigators...." (My italics.)

Evidently the *will* to use human subjects is always there waiting for the opportunity. I have emphasized this subject because it is essential for us to understand the mentality which goes with animal experimentation when we are considering whether it should be tolerated by society.

(29) On account of dissimilarities between animals and human beings, it is worse than useless to attempt to base any methods for the treatment or prevention of human disease on animal experimentation. Quotations from medical journals showing the inapplicability of results obtained from animal experimentation to problems of human beings are so numerous that a small book is needed to present them. And it is also commonly understood that the final experiment is always on the human being; when this is undertaken with due caution and for the purpose of curing otherwise incurable maladies (not for experiments) and with the permission of those concerned, it is

suffering human beings, and even with the laboratory developments like the sulfa drugs and penicillin their discovery owes nothing to animal experimentation.

The method of studying artificial (induced) conditions in animals, often conditions so foreign to their natural state that they can never be naturally acquired, for the purpose of understanding natural conditions in man would be regarded as an *a priori* mistake were it not for the vast prestige which has been built up for this fallacious approach over a century and more. As

quite proper. In fact, it is inevitable, with or without animal experimentation. Animal experimentation, with its inapplicability, poses the further problem that insufficient caution may result from very successful experiments on animals. With enormous drug companies promoting new wonder drugs all the time this may have dangerous consequences. The famous sulphonamides, for instance, for which over a hundred distressing side effects have been listed, failed to show any toxic effects in animal experiments. The *British Medical Journal* (Aug. 19th, 1939) points out, "All sulphonamide compounds, though singularly free from toxic action demonstrable in animals, have proved...to be capable of causing peculiar and undesirable effects in the human patient." When administered to guinea-pigs and mice, the toxic effects of streptomycin appeared to be slight, but when used on man they were general and sometimes severe (see *British Medical Journal*, Jan. 17, 1948).

However, since animal experiments are not reliable, the dosages and uses are actually worked out on man anyway. The only problem is that experimenters use this as an argument for animal experimentation. As Dr. A. V. Allen (see 20 j.) points out, "One of the more recent contentions of the vivisectionists is this: 'If it were not for vivisection, we would not have penicillin or the sulfa drugs.' When they are reminded that the sulfa drugs were discovered by a chemist, and penicillin by a biologist making studies under a microscope, they said: 'Well, the uses and dosages were worked out on dogs.' In order to determine how much truth there was in that statement, I personally studied the briefs of every article published about penicillin from the time of its discovery to the present—and what did I find? Nine out of every ten articles dealt with trials on *humans*. Arranged chronologically, nearly everything tried on dogs had been determined previously through human experience. In the long list of diseases for which penicillin is recommended, there are only a meagre handful which can even be simulated in dogs.

"Then who *did* work out the uses and doses of penicillin? The answer is that it was the internists in our great hospitals, and the doctors in active practice, who, through their combined experiences and judgements did the work."

Another damaging effect of this inapplicability, as Dr. Brailsford pointed out in 1955 (see 20a), is that valuable therapeutic preparations may be lost to man by unsuccessful animal experiments. It is interesting to note that lemon juice is a poison to a rabbit or a cat; sweet almonds, which we enjoy, will kill dogs, foxes and fowl; simple parsley is fatal to parrots; while on the other hand a hedgehog is able to eat without the slightest discomfort as much opium as a man can smoke in a fortnight and wash it down with enough prussic acid to kill a regiment of soldiers. Who knows how many preparations which might have been curative to man have been lost to the world through animal experimentation?

As Dr. Russel M. Wilder is reported (*Journal of the American Medical Association*, June 29th, 1940) to have said at the dedication of the Squibb Institute for Medical Research, "What we have learned about dogs and rats exceeds what we know about ourselves. Wilder emphasized that we must learn more from man than we do learn, because much of the information obtained from other animals fails to apply to man." An editorial in the *Lancet* (July 3rd, 1948) points out, "It is notoriously dangerous to apply experimental results from animals to the treatment of human beings, because human and animal physiology show subtle but important differences". In the November 1937 issue of the *Medical Times* (p. 170) we find the following strong statement:

"Today we are slowly but surely leaving the study of patients severely alone, and striving in vain to find an explanation of various diseases in the laboratory and by experiments on animals. How long will men of experience have to tell those laboratory workers that test-tubes and animals are totally different from human beings? How long will we have to point out to them that most of these experiments are a sheer waste of time, energy and money, for they lead us nowhere? Instead they very often, indeed, mislead us."

Dr. Alexis Carrel says, "They (scientists) are saturated with the prejudices of their environment and their epoch. They willingly believe that facts that cannot be explained by current theories do not exist". Animal experimentation has become an article of faith to the medical profession by reason of training and environment. This, besides promoting cruelty, is all the more dangerous to the progress of medical science because the animal-experimentation-mentality has permeated medical thinking to such an extent that it is responsible for much of current medical theory. Facts which do not fit these theories are often disregarded, even when supported by clinical experience, which is, after all, the only valid experience as regards the health of human beings, (30).

For example, there are not a few doctors who suspect that the underlying poisonous effects of all these animal derived inoculations persist for years and crop out in various complications which are seldom connected

There seems, however, to be a ray of hope somewhere, for the British *Medical Review* of January 1955 mentions in an editorial, "The year now ended has been one of many strange happenings both at home and abroad. So far as the profession of Medicine is concerned, there has been one step forward in respect to research. At long last clinical research is to take a definite place in the investigation of disease. Too long have medical men been misled by following the dictates of the laboratory worker and practically ignoring the teaching of the better-informed clinician. We have constantly insisted that the clinician must never allow himself to become the slave of laboratory research. If we are to discover anything of practical value regarding the causation and treatment of disease it will be at the bedside and in the post-mortem room, not by investigating conditions in healthy animals made to suffer from some disease or other artificially produced. *We trust, therefore, that soon clinical research will entirely replace experiments on healthy animals, for then only will any real progress be made in the art of healing the 'sick'.* (My italics).

(30) This, as Williams James called it, "power of club opinion" of the medical profession has been responsible for maintaining some of the most gigantic blunders in the history of healing in the face of common sense and experience. Leaving alone such ridiculous practices as blood-letting, which held sway for long periods and killed millions of persons in the course of Western medical history, even the most elementary and basic principles of modern medicine were long rejected by medical practitioners, who preferred to go on killing large numbers of people rather than consider a simple suggestion of *proven* clinical value.

A case in point is the unhappy life of Semmelweis, who was driven mad and committed suicide after a life of patiently trying to get physicians to simply wash their hands and keep clean and do a little disinfection with chlorine solution. At a time when thousands of women were dying after child birth, by this method he proved that the mortality rate could be brought down to almost nothing. He was supported by the greatest names of the Viennese medical world and achieved the lowest mortality rate the world had ever known. He did everything he could to spread this simple improvement, travelling to other countries, writing books, etc., and with what result? Opposition to his idea *increased* and women went on dying by the thousands! His mind finally gave way before this inhumanity to women. The story of his life has been called the story of "calculated persecution". Why was he persecuted? Because he went against the medical prejudices, superstitions and ignorance of his epoch.

Animal experimentation will one day be recognised as one of the great medical superstitions, incredible though that may seem in the face of its present encouragement, and because of its cruelty it will be regarded as the worst in medical history. Even in blood-letting, both the doctor and the patient at least thought that a cure was being attempted, whereas in animal experimentation the animal knows nothing but pain and the experimenter is after knowledge by means just the opposite of an attempted cure. There have been isolated instances of cruelty to human beings in the pursuit of health, but nothing in the whole history of the healing arts can equal the mass cruelty of animal experimentation as it is going on now. And I venture to say, in spite of all the wide-spread delusions which have blinded the medical world from time to time, none has ever been of such ultimate danger to the health and happiness of humanity.

with their real cause (31). This, if true, is a very dangerous possibility as regards long-term public health, and there is some evidence which points in that direction. However, this possibility is summarily dismissed by doctors

(31) The extent to which regular, practising physicians distrust the products of the vivisection laboratory was brought out in *The Christian Science Monitor* report previously mentioned (see 21) of a poll of all the members of the American Medical Association in 1932. The report mentions that, "Another, and to us, very important feature, was the fact that more than 50 per cent of the physicians who characterized vivisection as both justifiable and ethical refused to place their stamp of approval on methods of treatment which have resulted from it....."

"Better than 93 per cent of the doctors admitted there was a wide difference of opinion among medical men as to the benefits of serum therapy, 3,428 holding this view to 204 who thought otherwise....."

"The deduction from these replies is simple; hundreds of physicians apparently agree with those authorities who contend that application of the results of animal experimentation to human beings is a dangerous procedure....."

Professor James McIntosh, Professor of Pathology at London University, is reported in *Lancet* (Oct. 30th, 1926 and May 24th, 1930) to have stated before the Royal Society of Medicine: "Scientifically it cannot be disputed that from every point of view the injection of a virus capable of multiplying in the body of the individual is bad..... Who knows for how long an attenuated bacillus can lie dormant and then assume its former virulence." It is important to remember that in vaccination for smallpox, yellow fever, and tuberculosis (B.C.G.) what is introduced into the body is living micro-organisms (virus in the first two and bacilli in the latter), which go on living and multiplying in the body. If what Professor McIntosh said, and he is an authority on the subject, is true, these vaccinations are fraught with danger, and it would certainly seem so from the number of people they kill, particularly smallpox vaccine (see 33).

But I am considering here, not the deaths, but the effects on the long-term health of those who survive the vaccinations without any apparent complications.

Mr. J. E. R. McDonagh (for whose qualifications see 20g end), an authority on the nature of disease, has emphasized the importance of the remote effects of inoculations, particularly in regard to the "shock" produced in the blood and tissues by serums. "Owing to the peculiar constitution of protein", he writes, "the appearance of the signs and symptoms of shock may be delayed months and even years, and the longer the delay, the more difficult grows the problem of combating them. The long delay frequently results in the manifestations of chronic disease which, as often as not, remain for ever unconnected with the cause. When death comes, it does so slowly, and after a long period of time".

All inoculations for immunization seem to be able to produce serious complications of an apparent nature, and even when these do not occur there is evidently a possibility, or even a likelihood, of non-apparent mal-effects of an unpredictable nature.

As Dr. Beddow Bayly mentions (*Inoculation Dangers to Travellers*), "Apart from those who die (from inoculations) many are made desperately ill, and as every practising homeopath knows, it is more usual than otherwise for a vaccinated person to bear the results of the vaccinia virus in the form of a chronic underlying condition of ill-health for the rest of his life unless antiodoted by appropriate remedies".

Anti-vivisectionists have been pointing out for more than half a century the fallacies and dangers of inoculations for immunisation, but once a whole system is in motion it tends to perpetuate itself against all challengers including the challenge of plain facts marshalled by its own acknowledged authorities (see Creighton and smallpox, 33). Finally, for instance, it has been acknowledged with great reluctance that there is strong evidence to indicate that inoculations, particularly diphtheria and whooping cough, can either cause polio or turn a harmless infection into a deadly paralytic case. Any injection gives some predisposition to a paralytic attack in the limb or area injected. Thus even polio injections themselves can be taken as a predisposing factor to polio, particularly during an epidemic. (See 77).

A study of such inoculations as smallpox (33), B.C.G., polio (77), diphtheria, anti-typhoid, yellow-fever, cholera and typhus will show how little they have to recommend them and how dangerous each is in various degrees and ways, both in

as non-existent, and so are the people who hold such views, dropped "into oblivion" as the *Lancet* mentions in the case of 'Dr. Creighton the Anti-Vaccinator' (see 21). No wonder, for if it proves to be the case, the whole ugly system of animal-derived medicine will collapse.

When medical people claim that the sacrifice of an animal will save hundreds of lives, they are certainly stretching a point. They refer to the fact that techniques have been discovered on animals which have saved many lives. This is a debatable point and has, in fact, been much debated (see 27), but it is fairly certain that no such discovery has been made which could not have been made without recourse to animal experimentation. In any case, the animals sacrificed in such research are in the millions. For every one useful technique discovered, allowing that there are some which could not have been otherwise discovered, there are thousands of fruitless experiments.

They also point to such cases as the production of smallpox vaccine, where one calf goes through relatively mild pain and fever to produce vaccine enough for 6,000 people. How many people are saved by this is a matter of conjecture; in fact the whole subject of the efficacy and dangers of smallpox vaccine is an interesting one. That its use, in spite of its near universality, has doubtful protective value and is dangerous as well can hardly be questioned in view of officially accepted figures (33). Leaving

apparent and in probable, hidden ill-effects. For every case where one of these inoculations kills or maims a healthy person, and there are many, it is logical to expect that numbers of others are also poisoned in the same or similar ways, but subtly and slowly, with results not so obvious or drastic but perhaps just as deadly in the long run.

(32) Dr. Henry J. Bigelow, M.D.; Professor of Surgery at Harvard University "and the leading member of its faculty"; Surgeon Massachusetts General Hospital; "the most eminent surgeon in America in his day".

"President Eliot in his annual report referred to Dr. Bigelow as a 'discoverer and inventor of world-wide reputation, a brilliant surgical operator, a natural leader of men'."

"The faculty of Harvard Medical School also spoke of him as one 'who had done so much to render this school conspicuous and to make American surgery illustrious throughout the world'."

"Dr. Oliver Wendell Holmes referred to his name as 'one of the brightest in the annals of American surgery, not to claim for it a still higher place in the history of the healing art,'" from "An Ethical Problem", by Dr. Leffingwell.

(33) How a system of supposed prevention carried on for more than a century and enforced by law in many countries could be both fallacious and harmful on the basis of the official figures and yet continue unchecked is one of those mysteries of the collective closed mind. Long ago the great Naturalist, Alfred Russel Wallace, LL.D., F.R.S., wrote in his book, "The Wonderful Century": "The successive Vaccination Acts were passed by means of allegations which were wholly untrue, and promises which have all been unfulfilled. . . the practice of vaccination is utterly opposed to the whole teaching of Sanitary Science, and is one of those terrible blunders which in their far-reaching evil consequences, are worse than the greatest crimes".

It would certainly seem so. No doctor will classify a death as due to vaccination if he can find any other plausible cause to enter in the death certificate, yet in the half century from 1859 to 1910 over 1,500 deaths were officially recorded as due to smallpox vaccination in England and Wales alone. During the time of strictest compulsory vaccination after the law of 1867, there came the terrible smallpox epidemic which killed 44,000 persons (1871-2). After the Conscience Clause was introduced in 1907, the vaccinated proportion of the population gradually sank to about one-third, and the deaths from smallpox also decreased. Looking at any country's official figures, the rule of smallpox vaccination becomes apparent, the more vaccination the more smallpox, the less vaccination the less smallpox. Space does not permit citing the figures for various countries, but several books have been written on the subject, of which one

this aside, however, little reference is ever made to the *literally millions* of animals which have been sacrificed in futile experiments along many lines. To take one disease only, and one country only, we find that from the year 1904 to 1950 in England and Wales over one million two hundred thousand

is "The Vaccination Problem" by Joseph P. Swan. Furthermore, the figures show that, not only does vaccination fail to prevent epidemics, and the worst seem to occur at the periods of maximum vaccination, but the vaccinated are more susceptible to smallpox than the unvaccinated, figures going beyond 80 per cent for the vaccinated among smallpox victims.

Official figures also show that vaccination is more dangerous than smallpox itself. In recent years, with only a portion of the population vaccinated (England and Wales), the number of deaths from smallpox have been much less than the deaths from vaccination! These figures are the official figures of the English Registrar-General. For example, in the 14 years 1933 to 1946 inclusive, vaccination caused the death of 51 babies under one year old, whereas none died from smallpox during the same period (answer to question in the House of Commons, 10-11-48). From 1905 to 1952 vaccination killed nearly four times as many children under five as died from smallpox according to certificates sent in by doctors. The Registrar-General himself allotted 235 of these deaths to vaccinia and 107 to smallpox. Sir Wilson Jameson, Chief Medical Officer to the Ministry of Health admits in his report of the years 1939 to 1945 that there were only 21 cases of smallpox with 3 deaths in those six years, while there were 60 cases of post-vaccinal encephalitis with 31 deaths during the same period, not mentioning other complications of vaccination. Thus from *one* of the post-vaccinal complications there were ten times as many deaths as from smallpox itself.

These figures are not peculiar to England. In the New York smallpox scare in the spring of 1947, one report (Dr. Greenberg in the *American Journal of Diseases of Children*) indicates that 45 cases of post-vaccinal encephalitis resulted of whom 4 died and 2 probably will remain invalid, while 45 persons had generalised vaccinia, 28 from contacts ("satellite" vaccinia), of whom 2 died, both infants. Another death occurred as a result of infection of a vaccinated area. So 7 people died from vaccination, two may be permanent invalids, while the smallpox deaths amounted to *one*. In 1949, 1950 and 1951 there were 33 deaths from vaccination in the U.S.A., and from 1941 to 1948 there were 78 deaths from vaccination (National Office of Vital Statistics, Washington).

One of the most disturbing factors in these figures is that so many of those suffering these dreadful post-vaccinal deaths are babies. Official figures from the Central Bureau of Statistics at the Hague show that in Holland, of 108 deaths from post-vaccinal encephalitis during the years 1936 to 1952, 62 were aged one year or under, and of 33 deaths from other effects of vaccination, 20 were one year or under.

It is indeed strange that in the face of these figures, smallpox vaccination could continue to receive the general support of the medical profession and public health officials. Occasionally a frank and sensible statement comes from official sources, like the following from the Official Blue Book, "Sanitary Measures in India" Vol. XIX, p. 168: "Ten years' statistics afford no evidence that vaccination affects the usual epidemic course of the disease, and hence this fact, in face of the extensive vaccination work of the present and past years, appears to lead to the conclusion that in its epidemic form, smallpox must be met by improving the sanitary condition of the people".

More often, however, medical authorities and officials make statements which cannot be attributed to anything other than ignorance or misrepresentation; as with vivisection, the product (vaccination) must be defended. Unfortunately, this produces some glaring contrasts between the statements of some medical authorities and the facts they present in their own journals and books. By way of illustration, I can mention only one example from among a number:

In the *Handbook of Infectious Diseases*, issued under the auspices of the League of Nations at Geneva in 1945, we find on p. 232: "There is no known case of a smallpox infection during the first five years following vaccination". This statement is so mistaken that almost any country which keeps them can supply numerous statistics to the contrary going all the way back to 1870. Hundreds of deaths from smallpox among vaccinated children less than five years old have occurred in all parts of the world. For one reference, see *Lancet* (Nov. 25th, 1944) in which two doctors (Majors in the R.A.M.C.) give an account of the first hundred consecutive cases of smallpox

(1,221,661) experiments on animals were performed expressly for research into cancer. To hazard a guess at the number of animals used all over the world for research in this one disease in the last fifty years is impossible, but to say that the number is likely to go well into the millions is hardly

in a particular hospital during 1943 and 1944: 96 had been previously vaccinated and 70 had been vaccinated successfully within two years, of whom 16 had been vaccinated two to eight weeks before the disease started. Thirteen of fourteen fatal cases had been vaccinated, ten within five years.

Worse than this, while various medical miracles are publicised to the ends of the earth (like the Salk vaccine), and rushed into wide-scale use before their value has been conclusively established, the medical authorities are very slow to acknowledge or publicise the dangerous effects or the uselessness of any of those techniques which have become, as it were, medical dogma. As Dr. John Walter Carr, M.D., C.B.E., said in his Presidential Address to the Medical Society of London, (Oct. 8th, 1928): "Our views about vaccination are changing. They would probably change even more quickly had it not become part of the official creed established by law, and therefore dogmatic and as difficult to alter as the Athanasian Creed itself".

The English Ministry of Health, for example, kept the relationship between smallpox vaccination and post-vaccinal encephalitis secret for years after an official inquiry had established its existence. Just in the same way, more recently, the connection between diphtheria immunization campaigns and polio was suppressed for years until some independent research was published and forced an investigation. If all this abundant caution and quietness were applied in introducing a new treatment, and all the publicity and speed were used in warning the world of the exact nature and extent of any dangers and immediately discontinuing or suspending those treatments which prove futile in practice, the world would be a much healthier place for all of us.

In addition to all this, when an acknowledged authority in the medical world carefully studies a question like smallpox vaccination (which few doctors ever have), and comes to the conclusion that it is a "grotesque superstition", as did Dr. Charles Creighton, would it not appear that the matter needed very careful and unprejudiced investigation? Dr. Creighton was called "the most learned man I ever knew" by Professor Bulloch, who also said that his "History of Epidemics in Britain" was "the greatest work of medical learning published during the 19th century by an Englishman". (*Lancet*, July 30th, 1927). Dr. Creighton set out to write a history favourable to vaccination for the *Encyclopaedia Britannica*, but in studying the question he came to realize that it was exactly what Alfred Russel Wallace had called it, a "terrible blunder". He gave evidence to this effect before the Royal Commission on Vaccination, 1889, (Nos. 5,468 and 5,469). Edgar M. Crookshank, M.B., Professor of Pathology and Bacteriology at King's College, London, was stimulated by Dr. Creighton's works to an intensive study of the whole question and wrote two volumes on "The History and Pathology of Vaccination", supporting Dr. Creighton's contention and suggesting the abandonment of vaccination. Dr. W. Scott Tebb, M.A., M.D., D.P.H., had also studied the question and wrote a scholarly work entitled, "A Century of Vaccination and what it Teaches", for which he was prevented from accepting a post to which he had been appointed. Dr. Creighton's fate, mentioned elsewhere (21), like all those who oppose the medical dogmas of the day, right or wrong, was ostracism. One day he will be honoured, but the superstition is still with us so the day has not yet come.

In a quiet way, however, vaccination is on the way out, however long it may take. Compulsory vaccination came to an end in July 1948 in England, and in 1950 in the Annual Report of the Ministry of Health the Chief Medical Officer admits there is much to support the claim that routine infant vaccination might well be abandoned altogether, not, of course, because it is dangerous and unjustified, but because it cannot contribute enough to the immunity of the population as a whole to be worth while.

As sanitation and rising standards of living conquer smallpox, medical authorities, ignoring all the facts, claim that vaccination is stamping out the disease. In India, we have a long way to go in the improvement of sanitation and standards of living, and we must avoid in the meantime spending public funds for injecting poisons into our children which may kill or maim them without conferring the least immunity to smallpox, but only making them more susceptible to it, and spreading the dangers through satellite vaccinia. (See *Lancet*, June, 1950 and *British Medical Journal*, Aug. 16th, 1952 for cases of two children killed by satellite vaccinia). In India we still labour under the double error of compulsion combined with vaccination, and it is time we rid our country of both evils.

questionable. Leaving alone the tremendous amounts of time, energy and money (34) spent in this research, what of the misery of induced malignancies experienced by these millions of animals? And the result? Of the three main methods of accepted treatment for cancer (surgery, 'X-rays and radium), none of them owes its inception to animal experimentation, although numerous futile experiments on animals have subsequently been performed. The experimenters have discovered hundreds of "inciters" that can cause cancer in animals, but no cure has been discovered and even the cause is still unknown. As Lord Horder mentioned in a broadcast appeal on behalf of the British Empire Cancer Campaign (35) in 1951, "The reason we don't cure cancer is that, as yet, we don't know its real cause."

Mr. J. E. R. McDonagh (*see* 20g end), who has been called "one of the most brilliant bacteriologists and blood-specialists of this century", wrote, "Even today no true measure of the after-effects of Jenner's vaccination in man has been taken, and it is becoming more and more doubtful if the decreased incidence of smallpox is due to vaccination. . . . Indeed, it is possible that the change would have taken place earlier had vaccination not come into general use". This statement is born out by the fact that in countries which have had little or no vaccination, smallpox has declined more rapidly, keeping pace with improved sanitation and living conditions.

So here again we see the obstructive effects of animal experimentation and its products.

(34) It is impossible to estimate accurately the money spent on cancer research all over the world, and the proportion of that spent on animal experimentation. It is a large proportion but how much is unknown. In his speech before the House of Commons in 1950 (Oct. 31st) in which he called for a full and impartial inquiry into the whole matter of experiments on animals in connection with cancer research, Mr. Peter Freeman mentioned:

"The money spent on this purpose has been enormous and is estimated at between £10 and £20 million during the past half-century including large Government grants and annual subsidies, substantial collections from a gullible public, supplemented, to their shame, by well-known individuals who lend their names to this practice and who have provided millions of pounds for the purpose of vivisection for cancer research. Similar experiments have been conducted in almost every one of the great countries, notably the United States of America, France, Germany, Italy, the U.S.S.R., Holland, Belgium and others.

"Indeed, there has been no barrier in money, time or effort to providing every opportunity to conduct these experiments over such a wide field with almost unlimited funds during the last century." (Official Report, House of Commons).

Mr. J. E. R. McDonagh mentioned back in 1932, that, "Over four million pounds have been wasted upon cancer research. . . ." (*Nature of Disease Journal*, Vol. I, 1932, p. 2).

By 1935-36 the capital investments of the Imperial Cancer Research Fund (established in 1902) were over £250,000 and its annual expenditure reached in that year the sum of £15,947. By 1950-51 its capital investments amounted to over £648,881 with an annual expenditure of £24,837. The British Empire Cancer Campaign (begun in 1923) had collected £254,813 by May of 1931, and by July of 1950 its capital investments totalled, £568,373 while its annual expenditure for the preceding year amounted to £174,244.

These figures give an idea of the millions of pounds which have gone into cancer research over the years, and that in connection with two funds in one country.

(35) An interesting comment on the B.E.C.C. is found in *Lancet* (June 30th 1945, p. 827) by Duncan C. L. Fitzwilliams, C.M.G., M.D., F.R.C.S.: "It is a go-as-you-please system. It has existed for 21 years, spent a million pounds, and what has it got in practical value for the treatment of human carcinoma? Stilboestrol, certainly, but little else that I know of. This is not an attack on the B.E.C.C. in any way. It is just an explanation of how it works".

During all this period of intensive research, deaths from cancer have been steadily on the increase all over the world (36). What have the experimenters accomplished but adding more cancer to the world, even in human beings? Dr. George Bankoff, M.D., F.R.C.S., writes in his book, "The Conquest of Cancer", "It is true that Roux's results were confirmed by other research workers, and many of them succeeded in producing cancer in chicks, but they were always thwarted in their endeavours *when they tried to produce the disease in human beings or the higher animals.*" (My

In all the publicity conducted by the disease campaigns, two important points must always be kept before the public mind in order to ensure the proper inflow of donations: (1) It is necessary for the public to appreciate the dangers of the particular disease, which results in often exaggerating the danger out of all proportion to the actual incidence of the disease (as in the case of polio, *see* 77); (2) Some evidence of progress must be shown, which frequently results in attempts to cover up the fact that no progress is actually being made, producing exaggerated claims and arousing false hopes.

The B.E.C.C. did just this in a report published in *The Times* (London) in 1944, in which it stated: "Following the very recent discovery of the *complete control* of cancer by this campaign in *one site* of the body, intense investigations are now proceeding to *completely control* cancer in *all sites* of the body." (My italics). This statement, being unwarranted by the facts, was severely criticised by the editor of the *Medical World* (Nov. 24th, 1944).

This exaggerated claim refers to the treatment of prostatic cancer by oestrogen (stilboestrol). Since this is claimed to be a result of cancer research, it is important to see it in proper perspective. It applies to one of many types of cancer, and one of the most hopeful statements made for it by a medical authority is that the patient "may live for an additional 2—5 years." (Sir Stanford Cade at the Liverpool Medical Institution, Nov. 16th, 1950, *see Lancet*, Dec. 2, 1950, p. 718).

As far as the relation between stilboestrol and animal experimentation are concerned the following facts can be established on the basis of references supplied to Dr. M. Beddow-Bayly by the British Medical Association; as he puts it: "(1) that stilboestrol is not a cure; (2) that such benefit as has been reported was the result of clinical observation and experience and not of experiments on animals; (3) that experiments on animals which have been made have conflicted with clinical experience; and (4) therefore, had they been relied upon in the first place, they would have delayed, if not prevented, the therapeutic use of stilboestrol in man".

It is not possible to include the quotations from *Lancet* and other medical journals which prove these points, but they show, as in other matters, that animal experimentation is not only futile, but obstructive.

(36) In the United States, cancer deaths per 100,000 were as follows: 1900-64.0; 1910-76.2; 1920-83.4; 1930-97.4; 1940-120.0; 1948-134.9. The number of deaths in 1948 were 197,042 (Statistical Abstract of the United States, 1951, Dept. of Commerce).

The English figures were included in Mr. Peter Freeman's speech to the House of Commons (Official Report, Oct. 31st, 1950), in which he said of cancer research:

"What are the results? Deaths from cancer in Great Britain in 1900, fifty years ago, were 26,721, and last year there were 80,732—more than three times as many. Cancer is now the largest single factor in the causation of death in this country and more than 2,900,000 have died from it in the last half-century. That is more than double the number killed in both great World Wars—the Boer War and all the other minor wars including all those killed in the Forces and civilians, in which we have been engaged in the last half-century.

"During every one of the whole of those fifty years there has been an increase in the number of deaths, and the increase in the mortality per million living was 828 per million fifty years ago and 1,852 per million in 1949. It was less than 300 per million a century ago. During this period we have seen a substantial improvement in living conditions, hygiene, housing and medical and social welfare, which shows an improvement in the incidence of almost every other disease. This position not only applies to this country but to practically every other country in which these experiments are conducted and in which similar information is available.....

italics) This shows that attempts have been made to produce cancer in human beings not only recently on convicts (*see* 28) but for some time.

Since before the turn of the century eminent medical men have been protesting against this experimental cancer research, and many have claimed that it has made real progress impossible (37). Professor Hastings Gilford, F.R.C.S., Hunterian Professor, Royal College of Surgeons, wrote after a quarter of a century (*British Medical Journal*, Jan. 20th, 1934), "How obstructive this (cancer research) is to all progress may be gathered by noticing what happens when there is a conflict between evidence from clinical sources on the one hand and that of experiment on the other. Invariably the evidence from the mouse claims precedence over that from the man." After a quarter of a century more we find another eminent medical man, H. B. Atkins, (D.M., M.Ch., F.R.C.S., Director of Dept. of Surgery, Guy's Hospital in the *British Medical Journal*, May 16, 1953, p. 1099) writing the same sort of protest: "I cannot see how clinical and pathological observations are 'clearly refuted by experimental work on animal tumours.' Much of the work concerns experimental animals such as the mouse, and the application of lessons learnt in the experimental laboratory to human pathology is an exercise fraught with the possibility of error."

"Can anyone justify the continuation of such useless, cruel and unnecessary experiments? Is there any department of science or business which, after such extensive experimentation and with such negligible results, can justify a continuation of this form of research? There were 1,300,000 experiments on animals and 2,900,000 deaths from cancer in the last fifty years, 75,000 experiments last year and more than 80,000 deaths."

It is not necessary to give figures for other countries, since these two are representative of those in which animal experimentation has been plentiful, and the result in terms of improving the cancer situation in human beings is obvious from the mounting death rates.

It is interesting to note, in passing, that Dr. Charles Hill, speaking for the Government in reply to Mr. Peter Freeman's speech, made only one claim in favour of experimenting on animals in cancer research amidst the vituperation anti-vivisectionists have come to expect in reply to plain facts. This claim was that "at least one form of cancer has been successfully studied and is *now curable* as a result of animal experimentation." In other words, the stilboestrol claim again, for prostatic cancer (*see* 35). The mortality figures for this "curable" form of cancer in England and Wales from 1939 to 1954, which covers the stilboestrol period, are very interesting. Deaths from cancer of the prostate per million living have been rising irregularly but steadily throughout the whole 16 years, being 100 in 1939, 139 in 1946 and 157 in 1954. This shows how completely cured prostatic cancer is.

(37) A First, with regard to producing cancer in human beings, the point mentioned in the last sentence, it is worth while noting that such practices, like other human vivisections, are an old story. I will not burden this point with many quotations but just give a few references and one quotation to establish the fact that in this respect as in others (*see* 28), animal experimentation leads to human experimentation.

(a) Herr E. Hahn removed three pieces of cancerous skin from the left breast of a patient of his and grafted them on to the right breast producing by the time of death cancer of the right breast. Reports in *Medical Press and Circular*, Dec. 5th, 1888, under the title "Experiments in Cancer Grafting" and also in the *British Medical Journal*, July 25th, 1891, p. 214.

(b) Dr. M. Doyen, cancer specialist, Paris, grafted onto the healthy breasts of two patients cancerous tissue removed from the opposite breast, under chloroform. *British Medical Journal*, Aug. 29th, 1891, p. 495.

(c) In this case I will quote from an article on the nature of cancer by Roswell Park, M.D., since it shows the general attitude of the experimenters who take advantage of their patient's trust. They keep quiet; hence the few reports that appear are indicative of many unreported human experiments. This is from the *Medical Press*, New York, Apr. 1st, 1899, p. 388:

After all this expenditure of time, brains, public money, and endless misery in animal experimentation, what is there to show for it all? Really *nothing*. As an editorial in the *Medical Officer* put it, quite gently, "And this brings us to record once more our sense of disappointment with the very limited achievements from a practical point of view of all the elaborate and expensive (cancer) research undertaken over the last half-century." (Dec. 2nd, 1955).

As the well-known cancer specialist, Dr. Robert Bell (*see* 20m) wrote around the turn of the century: "I have given the subject of cancer unremitting attention during the past sixteen years. I think therefore, I am entitled to speak with some claim to knowledge. . . . *It is impossible* to arrive at any satisfactory conclusion in regard to cancer in man by experimenting on animals." (My italics). Did anyone listen them?

Is anyone listening now, even when such strong comments as the following are being made? (*Medical Review*, Feb. 1951, "Cancer, an Abstract Review"): "As the years pass, cancer seems to be on the increase. The

"But of still greater interest are the inoculations of cancer from man to man. Bosc alludes to three cases with which, he says, he is personally familiar, where he insinuates that this had been done both intentionally and successfully, yet he is discreetly silent with regard to details."

(d) T. de Martel took cancerous tissue from four patients, three suffering from cancer of the breast and one from cancer of the large intestine and made auto-transplants in the abdominal wall. Some of these tumours grew and were treated with X-rays. *American Journal of Cancer*, Dec. 1935, Vol. 25, No. 4, p. 830.

B. The following are a few example criticisms of cancer research methods throughout the half-century during which it has been more and more avidly pursued with less and less results. By less and less results I mean two things, (1) the result being uniformly nil, the return on an increasing investment is more and more disappointing as time goes on, and (2) the misleading nature of what has been learned on animals when applied to man, and the interference with clinical work by experimentalists with their theories, their absorption of money, time, facilities and workers, is more and more destructive of what results there might have been along valid avenues of investigation.

(a) Sir Henry Butlin, consulting Surgeon to St. Bartholomew's Hospital, and an ex-President of the Royal College of Surgeons, who is said to have operated on as many cancer cases as any surgeon of his day:

"I have been associated with the Imperial Cancer Research Fund, and in touch with its staff from the foundation of the Research, and have been a member of the Publication Committee of all its scientific reports. It has done nothing on the lines in which observation has been so useful. It has not unfolded the life history of a single variety of cancer, so that we can base our operations on the information. It has not even discovered whether spontaneous cancer of a particular part of the body in the rat or mouse runs a similar course to spontaneous cancer of the same part of the body in the human subject. These problems are not suited for experimental investigation; they are determined by observation." (*The Lancet*, Oct. 7th, 1911, p. 988).

(b) *The Medical Press and Circular* (June 19th, 1912, p. 635) in a leading article:

"It must be confessed that, in spite of unlimited resources, and years of almost feverish energy on the part of men with training of the highest quality obtainable from modern science, we stand very much as we did before the Fund came into existence. . . ."

(c) Dr. W. J. Fenton, then Dean of the Medical School of Charing Cross Hospital (letter to *The Times*, Jan. 11th, 1919):

"Expenditure upon investigation in connection with this disease must up to the present time have run into large figures, yet for all practical purposes our knowledge is much where it was before the investigation was undertaken."

(d) Sir William Arbuthnot Lane, in a letter to the *New Statesman*, Oct. 29th, 1927: ".....The cancer researcher has had a very long innings, particularly in the United States, and there is practically nothing to show for his efforts."

(e) Professor Hastings Gilford, in *Lancet*, Oct. 25th, 1930:

search for the cause has up till now met with a very poor result, largely owing to the fact that cancer research has been and is being conducted on laboratory animals. . . . We believe that until research switches over to the clinician, and leaves the laboratory investigator of cancer to grieve over his failures, no real progress will be made."

Does it not give one pause to wonder why, in the face of this gigantic failure, such research can continue along the same lines, absorbing more money and conducting more experiments every year? Prof. Hastings Gilford showed his remarkable insight on this point way back in 1930 when he wrote in the *Lancet* (Oct. 25th, 1930, p. 937), ".....This useless overgrowth of (cancer) research could not do otherwise than hamper and obstruct the progress of profitable research. For one thing the influence of paid specialism must inevitably tend to the formation of vested interests, and to a pontifical or dictatorial attitude on the part of its votaries". (My italics). There we have the answer, and not only does it apply to animal experimentation in cancer research but to the whole field of animal experimentation as a pseudo-adjunct to the art of healing.

"And now, after thirty years of research, all that it has to show is a prodigious heap of facts and inductions got by much industry from animal sources, but—useless to man, and most decidedly of no use to mice....."

"Finally, research or re-research—i.e., going over the same ground again and again—makes for needless repetition, for stagnation...which no doubt mainly accounts for the fact, otherwise difficult to understand, that laboratory cancer research has gone on for so many years, contentedly grinding out data and spinning inductions without attention being drawn to the fact that it never produces any useful results. And now, after a quarter of a century of research, we can see to what a deplorable waste of energy and ability and money this academic, aimless toil may lead. One useful, if negative, induction, however, emerges, which is that the problem of the causation of human cancer is not to be solved by experiments on lower animals in laboratories."

(f) Mr. Morley Roberts, well-known writer on cancer, author of "Malignancy and Evolution", in the *Medical Press and Circular*, 1931:

"The practitioner of any order, the humblest or the greatest, may well shrink from such bitter controversy as that likely to be aroused by stating the plain truth about cancer research." (April 15th).

"Most of this direct or indirect advertisement of cancer seems to emanate from cancer research committees, which are insatiable..... Are there any real results, or even reasonably founded hopes that we shall presently have results?..... The truth is that the money which of later years has been poured into such research has been practically wasted. The results, if not nil, are negligible. And yet millions more are still being asked for; distressed testators who have, perhaps, lost their nearest and dearest by cancer, are implored to leave what might as well as thrown into the Thames." (Apr. 22nd, p. 338).

(g) The *Medical Times*, leading article, March 1934, p. 37:

"Will any unbiased medical man say that we are one step further forward in solving the cancer problem? Thousands of pounds have been spent on animal experiments in this department of research, but with no practical result.....and meanwhile deaths from cancer continue to increase. It is futile to go on with expensive research conducted on the same lines. It only means a waste of time, money and energy for all concerned. We must look in other directions for the solution of this great problem. The cancer mystery will certainly never be unravelled in the laboratory."

(h) The *Medical World*, July 24th, 1936, Editorial on "Cancer Research":

"Cancer research, conducted over a long period and at enormous expense, has failed entirely to bring about a reduction in the death-rate from this terrible disease. Nor is this failure of cancer research to be marvelled at, for it has all along been carried out on entirely wrong lines..... We feel it to be our duty to warn the profession that cancer research, as at present conducted, is a snare and a delusion. It is leading us nowhere. Rather it is misleading us. The Imperial Cancer Research Fund

It should be borne in mind that this is only one example of the futility and obstructive effect of animal experimentation. The dangers and fallacies of inoculations for immunization (*see* 31 & 33); the dangers and obstruction to progress of the insulin (palliative) approach to diabetes; the absolutely futile torture of myriads of animals for more than seventy-five years to establish brain localisation when the whole conception of specific localisation is itself in question. these and many other subjects are each an instructive study. To an unbiased, careful investigator they will all point in the same direction, to the uselessness, obstructiveness, and cruelty of animal experimentation.

has a high-sounding name, certainl but what has it done to reduce the mortality rate from cancer in this country? Surely it must be self-evident that the object for which this fund was inaugurated has entirely failed. It has failed because the disease is being studied artificially in animals and not in man. Until cancer research is conducted on clinical lines in the human subject no progress will result. We must insist on a halt being called to mere laboratory work on experimental animals. Cancer research, as at present conducted, is causing untold suffering to myriads of animals. . . . we submit that it is unnecessary and immoral.

"It is high time that some steps were taken to investigate the modern methods employed in cancer research, and to discover the real reason why these are persisted in in spite of the fact that they have yielded no results." (My italics).

(i) Dr. James Burnet, M.A., M.D., LL.B., F.R.C.P.E. (*see* 20b) writing on "The Cancer Problem":

"The cancer problem still remains unsolved. I submit that it never will be solved so long as the present methods are persisted in. It is not in the laboratory that we can ever look for a solution, and certainly there never will be by animal experiments. Such experiments doubtless keep research workers busy, giving them something to do; but the whole business, in my opinion, is an absolute waste of time, energy and money." (*Medical Times*, June, 1938).

(j) Dr. W. Mitchell Stevens, Consulting Physician to Cardiff Royal Infirmary, M.D., F.R.C.P.:

"For years I have carefully studied the annual reports of the Ministry of Health, the Medical Research Council and the two Cancer Research bodies, but I have been unable to discover what benefits they have conferred on the community, although I must confess I have often admired their easy flowing rhetoric and their naive assumption of the value of their own efforts and as essays in subtle propaganda for the extraction of yet more money out of the generous and credulous British public." (*Medical World*, July 5th, 1940, p. 465).

(k) *Lancet*, leading article, June 16th, 1951, p. 1309:

"Results obtained with such artificial conditions might be expected to have little relation to human disease, for the genetic uniformity of the susceptible mouse families is never paralleled in man."

(l) *Medical World*, Article "Ab Ovo Cancer"; Jan. 25th, 1952, p. 576:

"In the pursuit of discovering the cause of cancer it cannot be gain said that organised research has failed. In every civilized country in the world innumerable scientists of all grades, working indefatigably in all manner of institutions and laboratories, are using up uncountable man-hours, irreplaceable materials and millions of pounds—all to agonisingly small human profit."

(m) *Medical Officer*. Editorial. Feb. 4th, 1955:

"The large sums of money, the time and the talent expended to date on cancer research are well known to us all. For all this effort, disappointingly little has so far emerged."

C. Besides preventing progress, wasting money and facilities and talent, degrading civilization and debasing individual character, animal experimentation has a tragic side in that whole human lives are wasted in futile and harmful efforts. In 1955 a woman experimenter died whose claim to "wide recognition", as it was put, lies in the number of rats she had studied and given malignancies. For 47 year (!) she had been working with rats and had developed a colony of "Inbred and cross-bred rats extending over considerably more than 100 generations—the equivalent of 3,000

But let us accept for the moment the contention that animal experiments can contribute useful knowledge. What about the endless repetition? Experiments are repeated *ad infinitum*, experimenters in one country repeating those done in other countries and thinking up new variations on old experiments. It must not be forgotten that experimentation is, as Prof. Gilford saw it was becoming, a vested interest, and the investment is not only in careers and prestige, but it is a vast commercial enterprise with millions of pounds and dollars behind it (38). The situation will be clear from the remarks of a well-known American doctor, Dr. Robert Gesell,

years in human history." The only difficulty is that it bears little relationship to human history in any way, and therefore, naturally, confers no boon on cancer sufferers either among men or mice, since no one has undertaken to benefit the rodent world in spite of all that has been learned about it. Another female rat specialist named Maude Slye, according to the *Chicago Tribune*, had studied cancer in mice for 20 years at the University of Chicago and finally admitted, 'The human problem must be studied first hand.' If this discovery had prevented all the mass of continuing animal investigations since then it would have been worth 20 years, but failure of the method only seems to stimulate further investigations along the same or similar lines.

All this tragic personal and national waste, and all the lives which probably would have been saved if these efforts had been made along right lines from the beginning, show again the destructive effect of the wrong means, animal experimentation.

(38) A. *Repetition*: To show the endless repetitiveness of animal experimentation by lists of references to the same experiments done over and over again in different places, or the same places with slight variations, is a task which can easily be accomplished but would be too bulky and specialized an undertaking for this kind of a treatment of the subject. It must suffice to state the fact that anyone who knows anything about animal experimentation and is not concerned with promoting it knows very well how repetitive it is and would not hesitate to say so. A mere perusal of experimental journals of different countries will indicate the repetitiveness even in the tables of contents. Medical education itself, now under the false lead of the animal-experimentation mentality, is a vast field for repetition of experiments, some being repeated for every class, and others by every student. Even very cruel and childish experiments, like proving on cats and dogs that they will die of exhaustion, lack of sleep, or starvation are repeated in some medical schools.

This mass of useless cruelty reminds one of the words of Leo Tolstoy (letter to Mrs. C. P. Farrell, July, 1909): "What I think about vivisection is that if people admit that they have the right to take or endanger the life of living beings for the benefit of many, there will be no limit for their cruelty." How true these words seem today when viewing the vast field of animal experimentation.

As Dr. M. Beddow-Bayly, M.R.C.S., L.R.C.P., expresses it: "one of the most remarkable features of modern therapeutic treatments is in complete inability of the research worker to profit by the experience of other investigators in the same field; indeed one might say that one outstanding characteristic of such laboratory methods, involving experimentation on animals, is the state of utter confusion and mutual contradiction in which the investigators invariably find themselves."

Lately a writer in the *British Medical Journal* has mentioned: "Cancer research, like other branches of science, is tending to be buried under its own literature." (May 7th, 1955, p. 1110).

We have already seen what Professor Gilford said in 1930 about repetition in cancer experiments (see 37 B.e.). Dr. Brailsford (20 a.) writes something similar in his article in the *Birmingham Post* in 1955:

"Our leading advocates for cancer research repeatedly tell us that a cure is 'just around the corner'. They evidently realise that our progress is along a concentric path but they fail to realise that their figures indicate that we are not travelling towards the vortex when the rate of progress would be faster and require less and less experiments, but towards outer darkness and bewilderment, where greater numbers, less results and slower progress is made. As will be seen from the above figures the numbers of deaths from cancer increase each year as do the number of animal experiments—surely this indicates that the latter are teaching us nothing of value. Many of the animal experiments for this and for physiology are mere repetitions. At

Chairman of the Dept. of Physiology at the University of Michigan before the American Physiological Society in 1952 (April 15):

present men copy one another like a flock of sheep: numbers contribute little, as do elaborate equipment and buildings. These do not create genius. It is the mind of man, and that, judging from these figures, just now appears to be befuddled and bewildered."

B. *The commercial element*: One thing about which few experimenters are confused is that if they are going to continue to make a living pounding the thighs of dogs or inducing tumours in rats, animal experimentation must be protected and widely valued inside and outside the medical world. There are no doubt a number who are both dedicated and deluded who do not react in that manner, but, by and large, the enormous experimental clique in the medical world can make short work of those who oppose animal experimentation (*see professional ostracism 21*). There are occasional little indications of commercialism, such as the following:

Dr. E. G. Annis, M.R.C.S., L.R.C.P., D.P.H., who was at the time Principal of the Royal Institute of Public Health, and Director of the Cancer Research Department, in referring to the obstacles placed in the way of newer methods of diagnosis and treatment of cancer, wrote :

"Perhaps one ought not to be too surprised at the amount of opposition, both direct and indirect, which has been engendered when one bears in mind that we all in our own estimation must live, and seeing that members of the High Priesthood of our profession have definitely said to me that, if the suggestions in this article were carried out and the results were only 50 per cent of what is anticipated, then in fact, '*half of them would very soon be out of work.*'" (His italics). (*Medical World*, March 30th, 1934).

The Editor of the *Medical World* also stated (July 24th, 1936): "We have long since formed the opinion that cancer research may afford a means of occupation for a number of medical men and others who might otherwise find it difficult to earn a living owing to their scanty knowledge of the treatment of disease."

So the artificial world of animal experimentation breeds the type of experimenter who does not hesitate to obstruct the introduction of new and promising treatments for the alleviation of human suffering where they do not contribute to the continuation and expansion of his own world. Consider what this means. While animal experimentation in itself and by its own nature impedes medical progress, the experimenter who instinctively tries to protect his own occupation and line of work, is, in effect actually hindering developments which may save human lives in order to continue taking animal lives and inflict suffering on animals.

Passing from the investment in careers and livelihood to pounds and dollars, the sources of money have been mentioned (22) and some idea of the amounts involved in cancer research has been given (34); a few amounts connected with polio will be found under (77). Only a rough guess will be possible regarding the amounts spent for animal research, but from the figures to be presented it will be obvious that very large amounts are involved.

In the *Boston Globe*, May 24th, 1956, the report of Senator Saltonstall's address before the Massachusetts Medical Society reads as follows:

"Saltonstall declared that this year's Federal appropriations for medical research would be the highest in history. 'The bill now calls for expenditures totalling \$123,603,000', he said. 'In the past eight years, the requests of both President Truman and President Eisenhower for medical research appropriations have always been expanded rather than cut by Congress, and I am confident this will be the case this year.'

"Saltonstall told the doctors the research 'appropriation would earmark \$34,000,000 for cancer, \$21,000,000 for mental illness, \$25,000,000 for heart disease." etc.

Knowing that a large proportion of the cancer grant, and probably a large proportion of the heart disease grant and mental illness grants (they are driving monkeys and cats crazy now and trying to cure them), will go towards animal experimentation, we can see even with the most conservative percentages how vast the expenditure on animal experimentation is.

The U.S. Public Health Service awarded 32 million dollars in research grants and fellowships in 1954, of which a sizeable number postulate animal experimentation in their very titles. For an example or two: J. B. Rogers of the Univ. of Louisville received \$6,000 for looking into the "Rate of Induced Tumor Growth in Guinea pigs;" G. P. Fulton, of Boston Univ. was awarded \$4,598.00 for a study of "Experimental

"The real and urgent issue is humanity versus inhumanity in the use of experimental animals. But the N.S.M.R. (39) attaches a stigma of anti-vivisection to any semblance of humanity. Anti-vivisection is their indispensable bogie which must be kept before the public at any cost. It is their only avenue towards *unlimited procurement of animals for unlimited and uncontrolled experimentation*.

Purpura in the Hamster Cheek Pouch"; Dr. H. B. Perlman, of the Univ. of Chicago was awarded \$8,316.00 for a "Study of the Vestibular End Organs of the Common Bat;" etc. etc. In all, there were 2,300 multi-thousand dollar grants in 1954.

A vast field of animal experimentation lies also in purely commercial undertakings like the big drug companies of Europe and America. One New York firm of manufacturing chemists, for example, has issued a folder showing an aerial photograph of its extensive "research and production laboratories", which include buildings for housing hundreds of thousands of test animals for "insuring potency and safety of biologicals before marketing." 425,000 of these animals were used in 1939 for testing. Besides this there are stables and paddocks in which an average of 500 horses are kept for serum production, and kennels where "a constant population of 400 dogs" are maintained for making Rabies Vaccine and Canine Distemper Vaccine and Virus. At times as many as 20,000 rabbits are housed in separate hutches and used in the production of anti-pneumococcic serum and other biological products. These figures from *one* firm show the staggering number of animals which must be used in all the drug companies of the world, and used very painfully also, although the suffering of animals in such processes cannot be dealt with here.

Besides this, there are sizable research grants given by drug companies for research outside their own laboratories. For example a Chicago paper mentions that \$19,000 has been awarded by Lederle Laboratories to a doctor at the University of Chicago, and mentions that he is one of 19 medical school teachers and researchers sharing \$279,000 in grants awarded by the firm during the first six months or so of 1955.

Nothing, naturally, could make a drug concern happier than the discovery of some obstructive palliative like insulin, which does not cure diabetes and generally prevents the patient from trying to cure it by proper diet. The unfortunate patient has to live the rest of his shortened life on injections of insulin, walking the dangerous tight-rope between too little and too much, always in danger, while the drug company earns at the rate of 15 to 25 cents per day per diabetic. I have not heard of a drug company grant to investigate the cause and cure of diabetes. But I have heard of very simple remedies for a number of serious diseases which have been prevented from reaching the public ear by drug companies and medical associations, neither of whom would profit from them (*see* 84).

Besides these sources of income for animal experiments, there are the large Foundations, of which both those of an obviously medical nature and those of a general nature support medical research, and there are considerable estates, and contributions from business firms in general, being donated to medical research all the time.

It all adds up to a gigantic investment and tremendous suffering for untold millions of animals.

(39) A. "The N.S.M.R." stands for the National Society for Medical Research. Like the research defence societies in other countries, the N.S.M.R. seems to have three main purposes: (1) to glorify vivisection, (2) to destroy anti-vivisection societies and humane associations which are not 100 per cent pro-vivisection, and (3) as Dr. Gesell says, "to provide an inexhaustible number of animals to an ever growing crowd of career scientists."

In (1) they have succeeded to the extent that public delusions are, on the whole, successfully maintained. In (2) they have had no success at all in a general sense, although some societies have suffered temporary setbacks, since the anti-vivisection movement as a whole is getting stronger year by year. In (3) they are also successful, by means which Dr. Gesell goes on to mention:

"Yet it is the National Society for Medical Research and its New York satellite that are providing the means to these ends (shocking experiments on animals). And how is this being accomplished? By undermining one of the finest organizations of our country: The American Humane Society.

"The N.S.M.R. has had but one idea since its organization, namely, to provide an *inexhaustible number of animals to an ever-growing crowd of career scientists* with but little biological background and scant interest in the future of man." (*Italics mine*). Dr. Gesell believes in vivisection, by the way.

Furthermore, experiments sometimes involving thousands of animals are even done to prove the efficacy of drugs already proved and in regular clinical use on human beings. One example of this type of cruelty was an "experiment" in which 15,000 (yes, fifteen thousand!) animals were severely scalded, most of them scalded to death, over a year and a half to pile up statistics on the value of a particular liver extract which practising physicians had already tried and approved. Rats and mice were anaesthetised in groups, which is a very unsatisfactory way to ensure that each is properly anaesthetised, and then dipped in scalding water up to the neck. Afterwards they were allowed to recover fully and survive as long as they could, some treated and some untreated. If an animal pulled through for 48 hours, he was listed as a "survivor". With what suffering the hours and days following the scalding were filled for these poor creatures it is not difficult to imagine. But, as always, that was not the real concern of the scientists. While any student of mathematics knows that the law of averages expresses itself quite satisfactorily at a much lower figure, the results with which the scientists were concerned can be seen in their report, for they refer to this staggering total of 15,000 animals so cruelly burned as "a sufficient number of animals to yield results of statistical significance." (*See the Journal of the American Medical Association*, Vol. 122, No. 11, July 10th, 1943, p. 720, and the *Journal of Clinical Investigation*, Vol. 23, No. 5, Dec. 1944, p. 795.

Although a great deal of evidence has been collected in establishing the scientific case against animal experimentation. I have neither the space nor the knowledge to treat at great length the utility aspect of the question. Even if animal experimentation were understood to be absolutely futile, from the standpoint of contributing to the health of mankind, that may not be sufficient to discredit it in the eyes of scientists. Many of them try to relate it directly to human good, some sincerely and some for the sake of placating the public. Some are mere "career scientists" who hammer the thighs of dogs for their daily bread. The most extraordinary and unjustifiable claims are made for it by persons in these groups (40). But for the "true scientific

"With the aid of the halo supplied by the faith of the American people in medical science, the N.S.M.R. converts sanctuaries of mercy into animal pounds at the beck and call of experimental laboratories regardless of how the animals are to be used.

"What a travesty of humanity! This may well prove to be the blackest spot in the history of medical science."

B. Regarding the main point here ("career scientists"), it is interesting to note that Professor Hastings Gilford considered too much laboratory work as a means of *disqualifying* a man for reliable judgment concerning human health problems. He wrote:

"Both reason and experience suggest that close, painstaking minute research in a laboratory is not conducive to the right understanding of large sociological problems involving questions of food or of civilization or race. Indeed, it would appear that the more eminent a man in the little world of research the less is he fitted to give an unbiased or reliable opinion in matters concerning cancer of human beings. And there would be no difficulty in finding instances pointing to the truth of this statement." (*British Medical Journal*, Jan. 20th, 1934, p. 122).

(40) Typical of the fantastic claims made by medical authorities for animal experimentation is the remark which Professor Lovatt Evans, a member of the committee of the Research Defence Society, was reported to have made before the British Association in 1928:

experimentalist" it is a question of knowledge for its own sake. Even the most reputed of medical journals (*Lancet*, June 29th, 1929, p. 1362) has made this point in an editorial: "The real defence of vivisection is not that it is useful, not that it has played a considerable share in ameliorating man's material state, but that it is a means of finding out things which could not be discovered by any other method." In describing the "scientific experimentalist", that well-known protagonist of vivisection, Mr. H. G. Wells, declared (*Sunday Express*, July 24th, 1927): "I doubt if his work is largely determined by practical ends, nor whether it would have much value if he undertook it directly for the sake of curing disease, benefiting humanity or anything of that sort. Sentimental aims mean loose, sentimental, ineffective work. He experiments because he wants to know. He wants knowledge because he wants knowledge; it is his characteristic good." It is not too difficult to understand why anyone who tortures animals merely because that is "a means of finding out things" cannot afford to have such "sentimental aims" as "curing disease" or "benefiting humanity" (41).

Nevertheless, animal experimentation would not last long in a democracy if its cruelty and futility were generally realized in spite of the entrenched position of the scientific experimentalist and his love for abstract knowledge. It is important, therefore, to study the scientific case against animal experimentation and to understand how misleading such arguments as "dogs and babies" really are.

Yet my own attitude is based upon the moral issues involved and they are the fundamental issues. I would say with Gandhiji, "We should be able to refuse to live if the price of living be the torture of sentient beings."

The fact that out-and-out torture (42) is involved cannot be doubted by anyone who has made a study of the subject. A few well-known laboratory procedures are in themselves sufficient to prove this point (43). Among many the following three will suffice. Cutting the vocal chords, generally referred to as "debarking", before experimentation is a method

He said that "no doctor can use a stethoscope, feel a pulse, take a blood-pressure administer a hypodermic, give an anaesthetic or a transfusion, perform any modern operations, or indeed take any steps in diagnosis, prognosis or treatment without utilizing at every turn knowledge derived from results of animal experimentation and obtainable in no other way." As Dr. M. Beddow-Bayly comments on this, "It would, I believe, be impossible to gather so much complete balderdash into one sentence as this writer has contrived to do." He then proceeds to show, point by point, that each part of the statement is false. ("Spotlights on Vivisection", p. 21).

(41) A statement attributed to that callous vivisector, Claude Bernard, sounds appropriate to this attitude; he made this statement as a reply to a question from Dr. Anna Kingsford, M.D., when she was one of his medical pupils.

Question: "Why is vivisection insisted on when, as a method, it is considered unscientific, and the conclusions to which it points are rejected as unsound?"

Answer: "Speaking for myself and my brethren of the Faculty I do not mean to say that we claim for that method, of investigation that it has been of any practical utility to medical science, or that we expect it to be so. But it is necessary as a protest on behalf of the independence of science as against interference by clerics and moralists. When all the world has reached the high intellectual level of France and no longer believes in God, the soul, moral responsibility, or any nonsense of that kind but makes practical utility the only rule of conduct, then, and not until then can science afford to dispense with vivisection."

(42) Torture is defined in the dictionary as the "act or process of inflicting severe pain."

(43) The prevailing ignorance of this subject is evidenced by the fact that this point still needs to be proved today. It does, as our committee's evidence has shown. That such suffering is involved in animal experimentation has been admitted before the Royal Commission on Vivisection by the vivisectors themselves, it has been

used with dogs and sometimes other animals to prevent the disturbance caused by the animals screaming and howling with pain (44). That experimenters tend of themselves to be more concerned with keeping animals quiet and easy to handle (45) than relieving the animal's suffering is seen by their frequent references to "light anaesthesia" even for very painful procedures (46) and their use of the dreadful paralyzer called "curare", which was long referred to as "the poison of the living death."

Claude Bernard, the famous vivisector, one of the early workers with curare, who investigated the poison for years and used it to immobilize his victims for the most atrocious experiments, has described its action himself in detail. After testing it on many animals, he announced that, although their death may seem peaceful and without pain, it must be accompanied

admitted by many medical and lay protagonists of vivisection, it is continuously apparent in descriptions of experiments made by the experimenters themselves in medical journals all over the world, and it has been confessed and condemned by eminent medical men for more than half a century—yet with all that evidence, the majority of doctors have said to us that little or no suffering is involved in vivisection and that certainly nothing amounting to "torture" occurs anywhere.

Mr. H. G. Wells, in *defending* vivisection, wrote: "There is no denial on the part of the scientific experimentalist that a certain number of scientific experiments are painful and have to be painful, and that they are of a sort that have to be performed on animals of an order of intelligence that leaves one in no doubt of the reality of the suffering inflicted." (*Sunday Express*, July 7th, 1927).

What Dr. Henry J. Bigelow (*see* 32) wrote in "Surgical Anaesthesia" is as true today as it was then, except it is being done on a larger scale:

"A torture of helpless animals—more terrible by reason of its refinement and the effort to prolong it than burning at the stake, which is brief—is now being carried on in all civilized nations, not in the name of religion, but of science. . . . There can be no doubt that in this relation there exists a case of cruelty to animals far transcending in its refinement and in its horror anything that has been known in the history of nations."

(44) In an article entitled "Antiproteolytic Activity of Serum from Dogs with Experimentally Induced Peptic Ulcers," in the Feb. 1950 issue of *The American Journal of Physiology* the experimenters report that "Fifteen dogs, debarked. . . . were given daily intramuscular injections of histamine in beeswax. . . ."

Another instance may be noted in *Lancet*, Aug. 6th, 1949, in a letter by Prof. F. Golla, a staunch pro-vivisectionist, in which he complains of a particularly cruel American experiment in which, "Seven dogs were used—as a preliminary they were operated on to render them incapable of barking. . . ."

Sworn statements of laboratory assistants prove that debarking is a regular procedure for many types of experiments. Being distasteful to the public, however, it is not often mentioned in reports of experiments, as they appear in medical journals.

(45) Dr. Klein told the Royal Commission on Vivisection that he used anaesthetics for convenience sake, and that he had no regard at all for the sufferings of animals. Although few experimenters are so frank, many accidentally show in their reports, that they use anaesthetics and hypnotics etc., more for ease of handling than for any consideration of the animals. An example is seen in the *British Journal of Radiology* for March, 1956, in which it is mentioned that "To facilitate packing each monkey into a suitable container a short duration anaesthetic was used." (*See also* 63).

(46) Freezing limbs "stony hard" during a 5 to 16 minute period was "inflicted" under "light" anaesthesia. (*The Yale Journal of Biology and Medicine*, May 1949, p. 401 to 414).

Cats were extensively mutilated and given electric shocks under anaesthesia so "light" as to permit the subject to feel and react to "a slight pinch of the foreleg." (College of Medicine, Univ. of Illinois, *American Journal of Physiology*, Dec. 1955).

Adrenalectomy operation performed on rats under "light ether anaesthesia". *Journal of Physiology* (Vol. 119, No. 4).

"by the most atrocious suffering which the imagination of man can conceive." Coming from him that is saying something, for he never exhibited the least compunction in causing the most excruciating pain, and when anaesthetics became available, did not always bother to use them even for his demonstration dissections before students. He described the curarized animal as follows: "In this motionless body, behind the glazing eye, and with all the appearance of death, sensitiveness and intelligence persist in their entirety. The corpse before us hears and distinguishes all that is done around it. It suffers when pinched or irritated; in a word, it has still consciousness and volition, but it has lost the instruments which serve to manifest them." (*Revue des Deux*, Vol. 53).

Curare is perfect for the callous experimenter since it does not interfere with the physiological processes in the same way anaesthetics do, and it keeps the animal absolutely quiet and easy to handle without the usual variety of clamps and bindings. As when the vocal chords are cut, the animal wants to scream but cannot make a sound, nor can it struggle in spite of its desire to express its pain in motion.

The use of curare is so revolting to any normally sensitive person who has a balanced sense of values that public protests reached such a point sometime ago that experimenters largely gave up using, or more likely *mentioning*, curare. Now, however, perhaps because the powerful medical associations and drug companies (47) feel they have command of the field (48), curare is again appearing more often in the reports of experimenters

Plunging dogs into water so cold that it killed them, the dogs received enough intravenous Nembutal "to provide adequate surgical relaxation, but not enough to completely prevent shivering." (*American Journal of Physiology*, Dec. 1953).

And so on.

(47) The size and power of the large drug companies are reflected in their equipment and their income. One among several big companies in the U.S.A., the Cutter Laboratories, was adding a 38th building to their huge plant in California, and in 1954, sales were \$14,850,000 (*see also 38 B*).

It is interesting to note that published dues for the American Medical Association reached \$3,750,000 for 1955. One of the main purposes for which these funds are used is lobbying and propaganda. It is reported that among lobbying and pressure groups in Washington, the A.M.A. is exceeded in expenditure by only one other organization, and since a number of multi-million dollar business combines and similar interests are active there, the A.M.A.'s record is quite a distinction.

(48) Although anti-vivisection societies are doing better than ever (the third major anti-vivisection magazine in the United States was started recently; England has had several going strong for years) successes in certain fields have perhaps given the N.S.M.R., the A.M.A. and the drug companies the feeling that their worries are over. There should have hardly been any cause for worry anyway, if one looks at the resources of the adversaries, but the various research defence societies really have worry as their foundation, for they were apparently formed with the main idea of fighting the "ignorant sentimentality of the public" especially in the form of those who voice it, the anti-vivisectionists.

What forces, after all, are arrayed on the two sides of this animal experimentation question? On the one side there are governmental agencies of great power, drug companies each of which is a multi-million dollar concern with plenty of funds for contributions to research defence societies, the research defence societies themselves with the support of the large population of the experimental laboratories, and the various regular medical associations, foundations, etc. Through pressure from associations like the A.M.A., and the big drug company advertisers etc., almost all avenues of public communications are available to spread the glorification of vivisection and closed to anything derogatory to it. On the other side are groups of ordinary private citizens with the conscience and courage to fight a gross and deeply entrenched evil, whose resources consist of what little they have in their own pockets to spare. They

(49). Its use with anaesthetics is a farce, for by no sign whatever can an animal betray its state of sensitivity. For experiments concerned with internal physiological reactions to pain, it is obvious that a curarized animal is the ideal victim, without anaesthetics of course; it has been estimated by those who have attempted to investigate the matter that there are quite a number of such experiments being performed, but only about one per cent being reported.

A special type of contrivance for preventing the struggling of rabbits came into use in the laboratories some thirteen or more years ago. There are many such in the laboratory for all kinds of animals. However, one of the most common and painful of experimental procedures now widely used

have one great power on which to draw, however, the power of rectitude. Such is the force of truth and justice and ordinary human decency that animal experimentation will be outlawed as inevitably as were slavery, human torture and comparable evils.

As that truly great man of science, Dr. Walter R. Hadwen put it, "You have no right to do evil that good may come; the strong have no right to take advantage of the weak.... knowing that we are right, and knowing that we have truth and right and justice, and God on our side..... we never intend to rest until the battlefield is ours." The view of Gandhiji and so many other great people will inevitably prevail.

In the meantime, however, Goliath has two major foul achievements to his credit, which perhaps make for an unusual sense of security amongst the experimentalists:

- (1) In many states and cities in the United States, animal shelters have been forced by law to turn over unclaimed animals to experimental laboratories, thus converting sanctuaries of mercy into procurement agencies for the experimental torture chambers. As Dr. Gesell says (*see* 39), "What a travesty of humanity!"
- (2) Much to the everlasting discredit of the British courts, a decision was taken several years ago that any society which included within its objects the anti-vivisection cause was not a charitable society, which denies such societies a number of important tax exemptions and cost many thousands of pounds in taxation and court fees. The only comment that can be made on a decision which denies the charitable nature of a non-profit organization teaching mercy to helpless creatures and aiming at the prevention of cruelty is, "What a travesty of justice!" This was tried also in the United States, but, as should be the case in any unprejudiced judgment, the decision was that the anti-vivisection society was certainly a charitable society. (United States District Court, Boston, 1939, Internal Revenue Bureau vs. New England Anti-Vivisection Society).

(49) For examples of curare appearing frequently in recent years we first turn to the research grants awarded by the U.S. Public Health Service where we find an award of \$9,577.00 to one A.R. Tunturi of the Univ. of Oregon for investigating "The Auditory Cortex in the *Curarized Animal*." (My italics).

An experiment in which dogs were mutilated and then given electric shocks, in which it mentions that muscular activity was controlled by the use of *curare*. (R. D. Taylor and Irvine H. Page; *American Journal of Physiology*, Oct, 1955).

Brain centers were stimulated by the application of electrodes in selected locations; these procedures "were carried out on *unanesthetized cats*, immobilized with *Flaxedil*, and maintained on artificial ventilation." (My italics). *Flaxedil* is a trade name for *sincurarina*, a curarizing agent. (By Mario Parma and Alberto Zanchetti *American Journal of Physiology*, June, 1956).

After inserting electrodes in the brains of 22 guinea pigs and 10 cats and allowing the animals to regain consciousness, "Paralyzing doses of *Tubocurarine* were then injected intraperitoneally and artificial respiration started", (My italics). (Morin and Green; *American Journal of Physiology*, Nov. 1953).

Electric shocks applied to the pulp of the teeth and the results perceptible in the exposed brain were noted, on cats which were "under *Nembutol or curare*." The three experimenters mention elsewhere that various responses have been recorded "following tooth pulp stimulation in anesthetized cats and *curarized cats*." (My italics). (Univ. of Oregon Medical School, *American Journal of Physiology*, Nov. 1955).

commercially as well as experimentally, is the testing of various preparations and chemicals on the eyes of animals, especially rabbits. This is frequently accompanied by pain sometimes so severe that the rabbits in their frantic contortions of agony used to break their own backs, accidentally releasing themselves from further torture. But rabbit "stocks" were devised (50), a kind of boxlike arrangement which holes the animal firmly in place while his eyes are being slowly burned out by chemicals, making it impossible for him to destroy himself and thereby spoil the experiment!

These three methods of "improving experimental conditions" speak for themselves, and in considering such things it must be borne in mind that experimenters have learned from continued public protests to avoid as much as possible mentioning these details, which might be disturbing to "sentimentalists" and anti-vivisectionists. For example, in England there has been a great deal of protest particularly in connection with the vivisection of dogs. As Air Chief Marshal Lord Dowding remarked in his speech to the House of Lords on October 14th, 1952, "There is good reason to believe that the most cruel experiments are never reported at all. This applies especially to experiments on dogs. Some 3,960 dogs were experimented upon in 1950, and probably some of the most important experiments were performed on them. Yet it is rare to find, among many experiments described in scientific journals, reports upon the vivisection of dogs. It seems not improbable that physiologists may appreciate the danger of arousing public indignation if they give details of what has happened to these dogs—or if the physiologists are beyond such considerations, it may well be that the editors of the said journals exercise a worldly-wise discretion regarding the articles which they select for publication". (51)

Perhaps this concern for public opinion is the reason why most scientists will not admit there is intense suffering involved in animal experimentation, and some will flatly deny that *any* suffering is involved, which does as much

(50) *The Journal of Laboratory and Clinical Medicine*, Mar., 1944, Vol. 29, p. 308—311, by Edwin P. Laug (verbatim quotation):

"In studies requiring the immobilization of rabbits for extended periods, it has often been found that the usual methods are undesirable, because they may produce either (1) stasis from the tie strings (even when padded); or (2) *Broken legs or backs due to struggling*. These difficulties have been overcome through the design of a holder which immobilizes the animal after the manner of a head and hip stock. No leeway is permitted for sufficient arching of the back or other motion to cause injuries which so frequently result.

"The length of time that an animal can be kept immobilized becomes primarily a problem of a need for food and water. While in the holder. it is relatively easy to pass a stomach tube.

" it would seem feasible to modify the sizes of the head and hip jaws to accommodate dogs and cats." (My italics).

In other words, now experimenters have something better than curare. There is no need for artificial ventilation; dogs can be debarked, and except for the squealing of rabbits and cats, no matter how much they suffer and how long, it will not cause the experimenter any inconvenience.

(For another reference, see *Journal Pharm. and Exper. Therap.* Vol. 82, No. 3, Nov., 1944, pp. 377—390).

(51) Dr. Brock mentions in his public statement in connection with the blue baby controversy that for some time "the authorities at Guy's Hospital would not allow the use of dogs. They feared they would lose contributions if it was known that dogs were used for research." Evidently one victim of the laboratories is befriended by the public, at any rate in England. Not that it does much good on the whole, for the main effect of public disapproval is not to diminish the experiments which shock the

violence to the truth as any statement possibly could. As Dr. Arthur V. Allen (see 20 j.) writes, "As a physician of many years' study and practice, I myself blush at some of the arguments written in behalf of vivisection. Apparently they are ground out in the belief that the general public is so incapable of independent thought, so willing to swallow any statement made by anyone who can write M.D. after his name, that, any pro-vivisection story will be accepted so long as it is told with a straight face."

One of the oft-repeated contentions of experts is that many experiments are inoculations and no more than "a mere pin-prick", and how could any sensible person expect animals to be anaesthetized for such insignificant procedures. Actually, that is just the point, you cannot anaesthetize them in any way which will do any good. For what is it which is injected? No one would mind a pin-prick, but what about the disease that follows, what about the days of reaction to the poisons so injected, what about the agonizing death after hours, weeks, or even years of disease or wasting away? (52). An animal cannot be kept under anaesthesia indefinitely even if an experimenter is presumed to want to prevent all pain; yet experiments often require that a painful experimental condition be maintained over extended periods for continued observation.

public, but to diminish the reports of the same. This will continue to be the case as long as the Iron Curtain of secrecy surrounds the laboratory work and all the information available to the public concerning it is that supplied by the experimenters themselves. (See 53).

Dr. R. Fielding-Ould, M.D., M.R.C.P., M.A., made an illustrative remark on this point. "It is not surprising," he wrote in 1945, "that the majority (the public) have no knowledge of what vivisection means, because the perpetrators of cruel experiments on living animals are more and more, as people more widely grasp the inhumanity of the laboratory work, driven to secrecy so that their deeds of darkness shall as little as possible come to the attention of the public. More and more experimenters delete from their reports details of their work....." (*Animal's Defender*, March, 1945).

(52) The puerile argument about the harmlessness of the pin-prick was used by doctors in our committee's interviewing. As long ago as 1899 this argument was destroyed in detail by no less an authority than Dr. George Wilson one of the members of the Royal Commission on Vivisection (see 20q). Every point he makes and experiment he mentions applies to this year as well as it did to that year. In making his Presidential Address to the British Medical Association, when occupying the Chair in Dept. of State Medicine, (Aug. 5th, Portsmouth), he said:

"I have not allied myself to the Anti-Vivisectionists, but I accuse my profession of misleading the public as to the cruelties and horrors which are perpetrated on animal life. When it is stated that the actual pain involved in these experiments is commonly of the most trifling description, there is a suppression of the truth, of the most palpable kind, which could only be accounted for at the time by ignorance of the actual facts. I admit that in the mere operation of injecting a virus, whether cultivated or not, there may be little or no pain, but the cruelty does not lie in the operation itself, which is permitted to be performed without anaesthetics, but in the after-effects. Whether so-called toxins are injected under the skin into the peritoneum, into the cranium under the dura matter, into the pleural cavity, into the veins, eyes or other organs—and all these methods are ruthlessly practised—there is long-drawn-out agony. The animal so innocently operated on may have to live days, weeks, or months; with no anaesthetic to assuage its sufferings, and nothing but death to relieve."

The surprising applicability of every word to the situation today shows how little the animal-experimentation mentality has changed and how little animal experimentation itself has changed in more than half a century.

George Bernard Shaw made the point very graphically and succinctly when he wrote (*Preface to The Doctor's Dilemma*):

"...vivisection may be painless in cases where the experiments are very cruel. If a person scratches me with a poisoned dagger so gently that I do not feel the scratch, he has achieved a painless vivisection; but if I presently die in torment I am not likely to consider that his humanity is amply vindicated by his gentleness."

The same point applies to those numerous, "simple" feeding experiments, which are made to sound so innocuous, in which anaesthetics are also useless and pain sometimes intense and protracted. Even the vitamin-deficiency feeding experiments often produce conditions of continuous misery by malfunctioning and mal-formations, but feeding experiments far more cruel are common in laboratories all over the world. The latest of a century of poisonous feeding experiments include the feeding of radio-active pellets to produce internal atomic burns.

The public know very little of what goes on in scientific laboratories for several reasons (53), and the substances introduced into animals by inoculations and feeding and the results they produce are discussed only in medical circles in a language few laymen can understand. Some of this information has been systematically extracted from medical journals by medical humanitarians, however, and gives an idea of the type of suffering which can follow that tiny pin-prick, and develop during those simple feeding experiments. A few examples will have to suffice, but they are no exceptions; they represent the type of suffering which has gone on in the world's laboratories for many decades.

Inoculations (54): In the *Indian Medical Gazette* (Sep., 1951, p. 392) you will find a long account of the "Production of Epidemic Dropsy in

(53) This point was made quite clear by Mr. Peter Freeman in his speech before the House of Commons (Oct. 31st, 1950):

"Although papers on the experiments are contributed to the medical journals by some of the research workers, no official report is ever issued of the result of any of these experiments, the whole of which are conducted behind closed doors in absolute secrecy. No inkling is given of what goes on, except what is volunteered by the vivisectionists themselves, who are unlikely to record anything affecting the suffering of animals or useless or unsuccessful experiments. No inspection is permitted to anyone except to the few officials appointed by the Home Office, all of whom, I believe, are themselves trained vivisectionists. They issue no report that is available to the public, who are kept in almost entire ignorance of the use, result or method of these experiments."

(54) A few references for inoculations follow with a very brief description:

British Journal of Experimental Pathology, Aug. 1956: (a) Injections of shingles virus into various parts of the anatomy of rabbits. Rectal temperatures reached 106° and more, "nervous disturbances appeared 1—3 days later. . . . paralysis. . . . severe generalized muscular weakness. . . . The animals were generally killed one, sometimes two or three, days after the onset of definite nervous disturbances."

(b) Rabbits infected with anthrax, a virulent and painful disease, by a number of methods. In pulmonary anthrax, which causes gangrene of the lungs, it was produced by forcing the rabbits to inhale anthrax spores "sufficient to kill 80—100 per cent. of the exposed rabbits, death usually occurring two to five days after infection." etc.

British Journal of Experimental Pathology, Vol. 43, 1953, p. 36—37: a. "The extensive skin lesion and septicaemia caused by the intradermal injection of virulent Type I pneumococcus in rabbits is particularly suitable for investigating the action of anti-biotics since the progress of infection can be watched by the naked eye; it is invariably fatal in untreated animals."

b. Besides the above infections, benzene in arachis oil was injected in other animals. Benzene can be relied upon to result in "violent inflammatory reaction." "Of 57 animals given benzene, 6 were abandoned owing to skin sloughs, 9 died suddenly after an injection, and 15 died without the leucocyte count falling to the desired level. Experiments were begun on the remaining 27 rabbits. Many of these died before the experiment could be completed."

British Journal of Ophthalmology, Vol. 36, 1952, p. 75; Koch's bacilli (tuberculosis) injected into the eyes of 30 male rabbits. Of 4 groups, one was given no treatment at all, and inflammation of the whole eyeball led to perforation between the 45th and 52nd days in 4 out of 6 cases, and final atrophy of the eyeball in all. The other groups fared better or worse with different treatments.

Monkeys," a study which took place in the School of Tropical Medicine, Calcutta, and was financed by the Indian Council of Medical Research. Argemone oil was given by intramuscular injection and as inunction (rubbing into the pores of the skin) to several rhesus monkeys. The effects were to produce severe oedema (abnormal accumulation of thin, watery body fluids) of the limbs and perineum (the pelvic region "including the anus and more or less of the genitals") leading to death in one to four months. Post-mortem examination revealed congestion of heart, lungs, liver, spleen, kidneys, adrenal glands and meninges (the three membranes which envelope the brain and spinal chord). It does not take much imagination to realize the extent of suffering endured by these monkeys for months on end, but if there is any doubt, four convincing photographs accompanying the text can be seen by consulting the nearest library.

Journal of Immunology, Sept. 1951: "Of 67 monkeys fed various amounts of poliomyelitis virus, 21 developed the paralytic disease." "Challenge doses" (another try) produced 12 more paralytic cases.

Journal of Immunology, Feb. 1950, Melnick and Ledkino: set of tests showing Cocksackie virus can be used to infect cynomolgus monkeys.

Journal of Immunology, Oct. 1949, Sabin and Stegman: ".....there became available a number of paralyzed convalescent monkeys as well as a titered pool of homologous virus...While it is still not feasible to use monkeys in as large numbers as one can use mice, an attempt to approximate it was made in the present study. A total of 61 monkeys were used in the test.....The Lansing strain of virus produced prostrating paralysis with a high mortality rate." (My italics).

Journal of Immunology, Apr. 1950, Wenner, Morley, & Todd: Rhesus monkeys given encephalitis (inflammation of the brain) with a virus made especially virulent by passing it from brain to brain of rodents, observed for 30 to 60 days "if they survived". Another strain of virus inoculated in the brain of four monkeys, death occurred in two within 72 hours after inoculation.

Surgery, Aug. 1950, Hanlon, Scott & Olson: 36 monkeys injected with virulent human tuberculosis, then operated upon to connect two arteries not naturally connected. "Tuberculosis developed in each of the 36 inoculated monkeys, and the disease was allowed to progress to a fatal termination..... In all the monkeys, the disease progressed to a fatal termination in 76 to 267 days."

The Journal of Industrial Hygiene and Toxicology, Vol. 29, Mar. 1947, pp. 85-95: Dogs injected with ACID 2, 4-D. "Dog. No. 7 developed necrosis (death of tissue) of the gums on the right and left side of the lower jaw..... Blood oozed from the gum margins throughout the remainder of the mouth. The necrotic process gradually extended to involve the floor of the mouth..... and exposed much of the mandibular bone..... ulcers developed on the outer aspect of the extremities on the 14th day....."

"Dog No. 8 died on the third day..... On the second day after the series of injections were terminated conjunctivitis developed. Blood oozed from the gums and tooth margins, the gait became unsteady and coarse muscle tremors appeared in the extremities after moderate exercise....."

Dog No. 6 "On the fifth day after injections were terminated..... ulcers developed over the outer aspect of the forelegs and right thigh which gradually became more extensive, deeper and infected..... The animal was sacrificed on the ninth day."

American Journal of Hygiene, Sep. 1945, Levinson, Milzer and Lewin: Monkeys inoculated with polio, then made to swim until "so completely exhausted that it was unable to support its own weight"; or chilled in cold water until "cyanotic (blue), very weak and somewhat prostrated;" or "traumatized" (beaten) "with a rubber mallet" on the inside "of the left or right arm", or the "groin of the left leg". 239 monkeys used in this series, 91 with exhaustion, 98 with chilling, and 50 with beating.

These are typical of experiments in medical journals in connection with inoculations. One experiment which I will also mention, although it is old, is important for three reasons: (1) It shows how cruel inoculations can be. (2) The suffering is described in a way experimenters have learned to avoid in their reports, particularly in England. (3) It shows what can be done under the British Law.

One other brief example of the effect of injections must suffice. This experiment is described in the *Journal of Physiology* (England) (Jan. 28th, 1954), and gives a careful 20-page account of the reactions of an unspecified number of cats to injections of a number of drugs. A metal tube was inserted into the brains of the cats and left permanently in position. This, by the way, is one of many techniques used in the laboratories for turning animals into drug testing machines. Some of the descriptions of the cats' reactions make painful reading, and I merely quote a few sentences without comment. "Histamine causes profound muscular weakness. There is, in addition, violent retching (spasms as if vomiting), defaecation (running of the bowels), swallowing, salivation, lachrymation (tears), tachypnoea (abnormally rapid breathing) etc.". The following is a description of a cat after a dose of D-tubocurarine:—

"Immediately after the intraventricular injection the cat jumped from the table to the floor and then straight into its cage, where it started calling more and more noisily whilst moving about restlessly and jerkily..... There was some resemblance to the condition seen after atropine. During the next few minutes the movements became wilder and the cat started moving about without avoiding obstacles. Finally the cat fell with legs and neck flexed, jerking in rapid, clonic movements, the condition being that of a major (epileptic) convulsion which ended in a tonic phase. Within a few seconds the cat got up, ran for a few yards at high speed, and fell in another fit. The whole process was repeated several times within the next 10 minutes during which the cat lost faeces and foamed at the mouth. When the cat was put back into its cage, it continued to have clonic-tonic seizures, particularly strongly of the front legs and head. There were clonic movements of the jaw; the pupils were maximally dilated during the whole time. The seizures were separated by short breaks of deep respiration which became slower and slower; the cat became cyanosed (turned blue from lack of proper aeration of the blood) and eventually, about 35 minutes after the injection, respiration ceased and the cat could not be revived....."

Feeding (55): *British Medical Journal*, Oct. 28th, 1950: "Cameron and Burgess (unpublished) describe the following symptoms in guinea-pigs and rabbits after a single poisonous dose (of gammexane) given by mouth:

"Increased respiration, restlessness, increased micturition (urination), intermittent spasms, salivation, grinding of teeth, backward movements, loss of balance, head retraction and convulsions (at first intermittent and then sustained with limbs outstretched) ending in collapse and death."

Lancet, Sep. 19th 1931: Monkeys injected with unknown human disease. The following is "typical of three of the cases":

"Dec. 10th—Found clinging to the bars of its cage uttering repeated and peculiarly piercing shrieks quite unlike the normal cry of the monkey. These cries were emitted only during observation, and on withdrawal of the observer they ceased; the animal appeared to be in a state of extreme terror.

"Dec. 13th—The animal now squealed continually whether observed or not. It appeared to be generally weak, but no definite localised paresis (paralysis) could be determined. No muscular spasms were observed. The previous day's food had been left untouched....."

Symptoms produced by further experiments: "After a short period, in which the animal was actively aggressive and in one case killed its cage-mate, violent muscular spasms, occasionally sufficient to throw the animal bodily across the cage, occurred and gradually passed into a stage of general weakness ending in death."

"Three animals bit themselves severely, two chewing off the end of a finger, and one the whole skin of the forearm, exposing the muscles from the elbow to the wrist".

(55) A few references for feeding experiments, with brief descriptions:

British Medical Journal, Jan. 10th, 1953: Large number of dogs (numbers up to 455), fed tablets of TEM. One is mentioned as having died overnight, another on the 4th day, yet another on the 11th, etc.

Veterinary Record, July 1st, 1950. Benzene hexachloride was fed to dogs and sheep:

"The early signs of the toxic reaction, which commenced three to four hours after dosing, were restlessness and hypersensitivity. Later a jerking of the head and shoulders was observed, becoming more pronounced, and associated with jaw movement and salivation. Vomiting took place between the fifth and eighth hour.....the convulsions, which were opisthotonic in character, occurred five to twelve hours after dosing..... Other features of the toxic reaction were increased micturition, inco-ordination and blindness." (Opisthotonos: "a form of tetanic spasm in which the head and heels are bent backward and the body bowed forward.").

Doctors all over the world claim, and many ordinary practitioners who have little time to read specialized medical journals have the impression it is true, that no operational procedures or mutilations are undertaken without anaesthetics. First let us assume that this is true, which it is not, as will be shown. Even if every operational procedure were conducted under anaesthesia, the object of the experiment in many cases demands the continued observation of the animals long after the effect of the anaesthetics has ceased, sometimes months and years afterwards. People who have a considerable stake in protecting the practice of vivisection will allow themselves to make the most astounding statements (56). Dr. Lane Petter, who gave evidence before our committee, is reported to have stated before the British Association on Sept. 7th, 1953:

"Experimental procedures, misleadingly called vivisection, for the most part involved no cutting and little or no pain. Surgical operations, when they have to be performed, are invariably done under anaesthetics; post-operative care is of the same kind as human beings receive in hospital." (*The Times*, Sept. 8th, 1953).

British Journal of Experimental Pathology, Vol. 30, Apr. 1949: The feeding of "2.5 g. Calcium Chloride per kg. daily to rabbits causes death after four days.".... "this is accompanied by extensive necrosis (death of tissue) in the liver....." etc.

The Lancet, Aug. 23, 1947, p. 289. Agene-treated flour incorporated in the food of 17 dogs. Effects after 18 hours to five days, omitting the first two stages:

"(3) Running fits; the dog, apparently apprehensive, will, after some preliminary haphazard quick movements, run round and round the cage, sometimes running into the walls, upsetting its water and food, and obviously in a state resembling panic. It may howl and bark.

"(4) Epileptiform or convulsive fits usually but not always follow running fits. The animal lies on its side, its jaws champing, foaming at the mouth, and legs beating the air. If these fits are severe and many, the dog will die."

British Medical Journal, March 22nd, 1947: Cats and guinea pigs fed tablets containing salts of iron, copper and manganese. "Those given two tablets at 3 p.m. one day were all found dead next day at 9.30 a.m. Two cats were each given 5 tablets, and within a short time they became ill and vomited blood....."

British Medical Journal, Dec. 15th, 1945: Four baboons given kerosene and D.D.T. because a child had accidentally drunk the mixture and died. One of the baboons, "Within a quarter of an hour had lost the use of his hind legs and was seen dragging himself with his forelimbs. Convulsions developed, and there were fine tremours of the muscles of the legs, tail and back. After one hour he died, with bloody, frothy fluid at the mouth and nares, cessation of respiration occurring while the heart was still beating."

(56) A similar statement from a celebrated American Scientist, Dr. W. J. Mayo (*Daily News*, July 24th, 1929): "This research must be carried out in the same humane manner as in the treatment of the human, otherwise the results would not be comparable and would be worthless."

Another: Mr. T. C. Angus, in the journal of the Research Defence Society in 1934: "Neither does the layman appreciate that every animal is handled, anaesthetized, and operated upon with as much care as is shown to a human patient."

These doctors might be requested to read through some of their own medical journals if these statements are based on ignorance.

It is difficult to imagine how anyone who has ever looked at medical journals dealing with experimental research could possibly be expected to believe such a statement. Perhaps it is not meant for such people. Dr. Lane Petter was formerly an Inspector under the "Cruelty to Animals Act, 1876" in the U.K., working as a part of that strange inspection system which never seems to discover anything wrong in hundreds of laboratories where thousands of experimenters are conducting millions of experiments. Now he is said to be the Director of the Laboratory Animals Bureau, Medical Research Council.

His remark about post-operative care is absurd on the face of it, and no intelligent person could accept such a claim whether he knew anything about medical research or not. As for his other remarks, a series of books the size of the Encyclopædia Britannica could be written in refutation with every word taken directly from medical journals. We have seen in the case of the 15,000 scalded animals that the very purpose of the experiment was realized in the survival time of the animals, 48 hours being the "survivor" time. In this and many types of experiment the time it takes an animal to die, or the type of mal-functioning which can be studied after he recovers, is itself one of the important features of the experiment. Obviously, in terms of suffering (which might be likened to the product of the degree and the duration of the pain) the anaesthetics in these cases often eliminate only a minute fraction of the total suffering. This is most true of the cases of long-drawn-out agony which follow many of the experimental procedures. For example:

Operations under anaesthetics (57): Journal of Neuropathology and Experimental Neurology, Vol. No. 3, Jan. 1944, p. 69. Let me first point out that physiological experiments with the brain have been going on now for more than three quarters of a century, and there are hundreds of *published* experiments of this type done in many countries with all kinds of very painful results. I have chosen this primarily because it is a good illustration of the wonderful "post-operative care" which follows experimental procedures done under anaesthetics. The experimenters begin with the remark that the "interesting" results of brain experiments on cats prompted them "to try the effects of similar lesions in the macaque monkey," a type which is common in India and is exported. Eight monkeys were used, of which we have space to describe the fate of only one, which is referred to as "Macaque

(57) A few references for operations, *with and without anaesthetics*, with brief descriptions:

American Journal of Physiology, June 1956: Pulmonary disease (edema) and death in dogs whose hearts and kidney arteries have been mutilated. The chest was opened and one of the valves of the heart removed; the right kidney was cut out, and the left renal artery was clamped. The dogs suffered "malignant hypertension and death." They seemed in good condition for 6 to 8 hours, but by 18 hours the heart began to beat rapidly and breathing became rapid, they began coughing up "frothy foamy fluid", and by 48 hours they were nearly dead. Autopsy showed terrible internal destruction, from which these dogs had been suffering for at least two days.

American Journal of Physiology, Nov. 1955: One of the worst forms of pain known to man is said to result from a blocking of an artery. In this experiment, the main pulmonary artery was constricted in *unanaesthetized* dogs "until cardiac failure developed". Enlargement of the heart, systemic engorgement of the veins, enlargement of the liver, etc., etc. were the results in *conscious dogs*.

American Journal of Physiology, Feb. 1956: Tricuspid valve of the heart in 22 normal dogs and 12 dogs with artificially produced ascites (accumulation of fluid in the peritoneal cavity), and bilateral vivisectional fistulas in the hind legs, injured to study blood volume etc. The animals died after varying periods of time, and "shortly

5-A". After an operation under nembutal in which an electrode for applying electric shocks was "threaded" through the brain, the condition of "5-A" was regularly recorded. The following is verbatim quotation:—

"April 15, 1943...when the current is applied the animal breathed rapidly and vigorously with production of a strident cry....."

"April 16. The animal is alert and watchful. He can sit up and move about the cage but spends most of his time lying down. When disturbed he bares his teeth and may even strike at his *tormentor*, but feebly and without much spirit....."

"April 20. Decidedly less active today. He sits with his head between his knees. Makes menacing grimaces *if irritated enough*. He eats well.

"April 21. Even less active today. *Cannot be made to attack*. Very indifferent to everything but food...."

"May 5. Sits quietly in cage. Very indifferent to everything but food. *Can be roughly handled without menacing reaction. Bared his teeth when his face was slapped*.

"May 17. Unchanged. Eats well. Rejects carrot smeared with faeces (excrement)..."

"May 18. Much weaker today. Lies on the bottom of cage..."

"May 19. Unchanged *except that he will not get up when irritated*..."

"May 20. Found dead in cage." (*Italics mine*).

A few more brief examples may give a slight conception of this vast field of suffering:

American Journal of Obstetrics and Gynaecology, Vol. 66, Nov., 1953, p. 1082 : A large number of female Rhesus monkeys operated upon under anaesthesia, shifting the uterus and upper portion of the cervix in such a way that the menstrual flow would run into different parts of the body. Monkey No. 872 died from a perforation of the colon and peritonitis 3 years and 35 days after the operation, after menstruating into the peritoneal cavity month. Monkey No. 889 died of haemorrhage caused by gangrene of the upper part of the vagina and lower end of the cervix. Monkey No. 874, after surviving a number of very painful complications, was killed and autopsied 4 years and 7 months after the operation. Monkey No. 884, after two years of discharge into one area, had another operation for shifting the uterus to discharge through the lower rectus muscle area and was observed for another 343 days. Similar methods used for Nos. 900 and 907. And so on!

Journal of Neurology, Neurosurgery and Psychiatry, May 1952. Brain operations on monkeys. Results:

"Experiment 3: The monkey's condition after the operation was poor it exhibited a right-sided hemiplegia ('paralysis of one side of the body, with spasms of wasting') and died six days after the operation."

British Medical Journal, Feb. 7th, 1953:

Kidneys transplanted from belly to neck, causing death with spasms of the arteries in three weeks (dogs).

American Journal of Physiology, Nov., 1955. Six experimenters of Michael Reese Hospital, Chicago, stopped circulation in the portal vein of the liver in 11 dogs. Six died, one on the day of the mutilation, four next

before death the ascitic fluid was grossly bloody, and at post-mortem the liver was black from engorgement with blood which could be observed actually to drip from the liver surface."

American Journal of Physiology, Sep. 1955: Egdaahl: Dogs joined together by means of tubing between the opened carotid arteries and external jugular veins of adjacent sides of each dog, thus permitting the blood of one animal to flow into the body of the other. 41 cross-circulations were performed.

In an earlier cross-circulation experiment reported in the same journal by W. M. Firor of Johns Hopkins Univ., 80 dogs were bound together into 40 pairs of "siamese twins" with intermingling blood streams. These dogs dragged out a miserable existence for 5 to 6 days. Drugs were tried on one animal to see the effects on the other, one was chilled to see the effects on the other; finally blood clots formed in

day, and one two days later. All the dogs showed extensive gangrene of the liver.

Anyone who has the least idea of the functioning of the body will realize what acute and prolonged suffering was inevitable in these experiments and in the hundreds like them that are being performed month by month all over the world.

But many of the most horrible and revolting of *published* experiments, however, are those in which "insensibility cannot be produced without necessarily frustrating the object of the experiments" (to quote the proviso in the British law which adds descriptive accuracy to its name, "Cruelty to Animals Act"). That there are experiments which involve the most intense and sometimes prolonged agony for animals alive and conscious throughout is an incontrovertible fact howsoever many times it may be denied, and the proof comes from the same quarter as the denials, that is, from medical men and medical journals (81) (p. 219).

As Air Chief Marshal Lord Dowding said, in introducing his speech in the House of Lords in 1952 (already quoted):

"One of the great difficulties in dealing with vivisection and animal experiments in general is that, broadly speaking, laymen do not have access to the laboratories and the places where this suffering is inflicted, and therefore the evidence available must be incomplete, and restricted to accounts which the experimenters themselves give in medical and scientific journals. It is not unreasonable then to assume that the actual situation may be a good deal worse than there is evidence to show. On the other hand, what evidence there is incontrovertible, because it comes from the experimenters themselves."

Occasionally a doctor who believes in animal experimentation will, as it were, defy the medical "herd mentality" and openly express to the whole medical world his horror and indignation at the cruelties that are taking place. This kind of defection is rare (58), but it has happened, and one instance helps to wash away all the denials which are constantly before the public. The following is part of a speech by Dr. Robert Gesell, Chairman

one dog and led to its bleeding to death into the other; in other pairs, one died of pneumonia and the other had to struggle on attached to a corpse briefly until death mercifully ended the experiment for all by the end of 6 days.

American Journal of Physiology, Oct. 1955: Taylor and Page performed very gruesome experiments on 20 or more dogs, giving electric shocks to cut nerve ends and pumping blood into partially deservered heads.

These experiments are typical of operations performed on experimental animals, but being few give little indication of their amazing variety and futility.

(58). It may be interesting to note that several scientists of repute in Britain sent protests to the *Lancet* (Aug. 6th, 1949) condemning certain very cruel experiments in America. The condemnation of cruelty is always welcome, of course, especially in the medical world which has, on the whole, been reluctant to admit that any appreciable pain, much less cruelty, is being inflicted in animal experimentation.

Prof. F. Golla shows something of the reason for these condemnations, perhaps, by closing his letter with the remark that, "It would surely, in some degree, involve us all in the dishonour that such practices cast on medical research were we to ignore them for fear that attention drawn to them might furnish ammunition for unscrupulous arguments of anti-vivisectionists."

Actually, anti-vivisectionists had already called attention to those and similar experiments, and they have, in any case, a wealth of ammunition. The medical world need not, therefore, hesitate, as it always has, to condemn the cruelties of animal experimentation. It is always easier, however, to discover what is wrong with the other person, and that is just what Prof. Golla has done. While condemning a certain cruel American experiment, Prof. Golla makes one of those astounding statements that people have come to expect from medical men. He writes, "The public realises that laboratory experiments performed under license in this country....are invariably conducted with humanity."

of the Dept. of Physiology, Univ. of Michigan, before the American Physiological Society in 1952:

"Consider what we are doing in the name of science, and the issue will be clear.

"We are drowning and suffocating unanæsthetized animals in the name of science.

"We are determining the amount of abuse the life will endure in unanæsthetized animals—in the name of science.

"We are producing frustration ulcers in experimental animals under shocking conditions—in the name of science.

"We are observing animals for weeks, months, or even years under infamous conditions—in the name of science."

This is exactly what anti-vivisectionists have been saying for decades, and exactly what doctors have been denying for decades.

It would be impossible in the space at my disposal to provide anything like an exhaustive list of even the types of experiments performed without the use of any kind of anæsthetics, but a few examples will show something of their atrocious cruelty.

Traumatism ("the morbid condition of the system due to an injury, wound or shock"): Studies in experimental shock, concussion, and other traumatic conditions have been going on for nearly two decades at least (59) producing the most excruciating pain and often prolonged suffering, the victims mainly being dogs, although for certain experiments monkeys have been used and for others rabbits, guinea-pigs and rats. In many of the experiments the animals are beaten under anæsthesia and then allowed to recover and linger on to die of their horribly mutilated condition, but in a number of experiments no anæsthetics are used for a portion or all of the animals being "traumatized". A few examples will show the methods employed,

(a) *Rotating drum* with an internal projection designed to produce traumatic shock without hæmorrhage or fracture of bones by dropping the animals short distances hundreds of times in rapid succession. Many variations tried over many years in several countries since its introduction (1942), thousands of animals having been so abused, resulting generally in death from injury and shock. For example, "With a speed of 21 r.p.m. and three bumps the number of turns required to kill female rats varied in six animals from 600 to 1,400," (4,200 falls in 66 minutes). Small animals used, such as rats and guinea pigs. Most die within a few hours of traumatizing, but others observed for one or two days. *No anæsthetics used* (60).

No one can say, of course, exactly what "conducted with humanity" means, and we may concede the point that Prof. Golla is himself perhaps very humane, but conclusive proof is available (some of it is included in this Note) that "laboratory experiments performed under license in" Britain have inflicted severe pain on animals and continue to do so. This, by definition, is *torture* and it may be regarded as doubtful that *any one* could claim that torture can be inflicted "with humanity".

(59) In the, April, 1950 issue of the *American Journal of Physiology*, in an account of investigations into traumatic shock (beating dogs thighs to a pulp, in plain language), there are references given back to 1940 for such experiments.

(60) Generally referred to as the "Noble-Collip Drum." The first account of its invention is given under the title, "A Quantitative Method for the Production of Experimental Traumatic Shock without Hæmorrhage in Unanæsthetized Animals" in the *Quarterly Journal of Experimental Physiology*, Vol. 31, No. 3, 1942, p. 187.

For a reference to other experiments elsewhere using the Noble-Collip Drum see the *American Journal of Physiology*, Vol. 139, 1943, p. 123.

A brief idea of the damage done to the animals can be given by quoting from both these articles:

(b) *The Blalock Press*, designed to deliver measured pressures ranging from 500 to 4,000 pounds between two "jaws" with dull steel teeth. In one series, the press was used on dogs and rabbits, pressure on the dogs hind legs generally being one ton. First experiment: 69 dogs, anaesthetics used during first four hours under press, "in no case" during last hour. Dogs removed from press to suffer until death; some survived as long as 24 hours, but most died between 5½ to 12½ hours. Another report in same article: experimenters crushed the legs of more than 300 dogs. Another: 85 dogs used. Another: additional flesh-crushing inflicted on 97 rabbits, *half of which were given no anaesthetic whatever* (61).

(c) *Tourniquet trauma* has been used on various sizes of animals from dogs to mice. A tight ligature of rubber, metal, or some other material is tied generally around the legs to stop circulation. On release the leg swells severely and the animal always dies in shock unless promptly treated. Anaesthetics are seldom mentioned and probably seldom used since the suffering is not more in the tourniquet period than in the hours or days which follow (62).

(d) *"Hydraulic cylinder activated by compressed nitrogen"*, used to deliver blows to the heads of dogs in a study of concussion. Many machines for such specialized forms of torture have been developed by experimenters. This machine, as far as the published report is concerned, was used on 116 dogs, who were separated into five categories after the experiment was completed: "(1) Nembutalized (anaesthetized) animals suffering no skull fracture after a blow to the head (13 dogs). (2) Nembutalized animals *suffering skull fracture* after a blow to the head (8 dogs). (3) *Unanaesthetized* animals which received subconcussive blows (26 dogs). (4) *Unanaesthetized* animals which suffered *concussive* blows (46 dogs). (5) *Unanaesthetized* animals which *suffered skull fractures* after a blow to the head (23 dogs)". (My italics) (63).

After removal, "Their condition apparently becomes progressively worse for some hours. Respiration is usually increased in rate. In some cases blood may be seen around the margin of the mouth and nose...occasionally the teeth, especially the upper incisors, may be broken or knocked out. If death follows rapidly the animal becomes moribund, respiration is slowed, and the heart-beat is irregular on palpation..... At an early stage severe diarrhoea is consistently observed....."

"About 500 rats were subjected to 650 revolutions" in the drum. A certain percentage of these (10.15 per cent) either died in the drum, exhibited gross haemorrhage (usually in the gut), sustained intracranial haemorrhages and fractured skulls, or died within twenty minutes after removal from the drum....."

In these two accounts only, mention is made of over a thousand rats and over a hundred guinea-pigs being traumatized in this drum, and these were only two among the first of many such experiments.

(61) Performed at the University of Rochester School of Medicine and Dentistry, N.Y.; reported in the *Journal of Clinical Investigation*, Vol. 24, No. 2, March 1945, pp. 127—151.

(62) For two recent examples of tourniquet shock, *see* (both happen to be on mice):

American Journal of Physiology, Nov. 1955, Millican and Rhodes, National Institute of Health, Bethesda, Md., U.S.A.

American Journal of Physiology, Dec. 1955, Beck and Redick, School of Medicine of the Univ. of Pittsburgh, Pa., U.S.A.

(63) *See the American Journal of Physiology*, Aug., 1952, Brown, Brown & Hines, Dept. of Physiology, Univ. of Iowa, Iowa City, U.S.A. Several different experiments are mentioned, each of which is revealing. Typical remarks occur, such as, "the procaine infusion eliminated *superficial pain sensation*.....The surviving

(e) *Hammering*: A widely used technique is simply hammering dogs to death. Laboratory language, of course, puts it differently, for example: "The second traumatic procedure was the multiple blow" method "used by other investigators" (references back to 1940). "The thigh muscles were contused with a light raw-hide covered mallet" in order to "cause fatal shock." Many kinds of hammer have been used, "a tapecovered wood mallet (200 gm)," "a rubber mallet", a "light rawhide mallet" etc. This technique was evidently modified around the early 1940s to avoid the "necessity" of breaking bones (64), from 400 to 1,500 rapid blows being delivered to the thigh muscles. A 1950 report (65) mentions more "scientifically" that "80 blows/kg" were delivered. Anaesthetics are generally given only for the period of hammering, after which the dogs must suffer until death or through-out recovery. One example: Columbia University, 1947 (66), 30 dogs beaten with rawhide mallet, 700 to 1,000 blows delivered under anaesthesia which the report states did not entirely eliminate the element of feel. After beating, the administration of ether was discontinued and the condition of the dogs studied. One quarter of the dogs died between 50 minutes and 9 hrs. 21 mins. afterwards. Two dogs were kept until the next day and brought back to the animal rack and expired from fright. Several dogs who had had their spinal chords previously severed were beaten without the application of anaesthesia. *They were fully conscious.*

(f) Various miscellaneous methods of traumata are legion, producing all kinds of conditions for experimental study. "Digital manipulation", which evidently means squeezing or pounding sensitive areas with the hand, has been used to produce shock (67), for which another method is shooting fine lead shot into the thighs (68). Freezing legs until they drop off

animals were kept under observation for a period of *two weeks* before being killed. *If the animal proved unmanageable* at this point in the procedure, intravenous Nembutal anaesthetic was administered." (My italics).

(64) In the Jan. 1944 issue of the *American Journal of Physiology*, is an account of beating the thighs of dogs "with a 200 gram rawhide mallet." In this report, referring to past work, the authors state, "Several modified muscle trauma techniques have recently been advanced which, while still sufficient to cause fatal shock, do not necessitate breaking of the bones."

(65) April, 1950, issue of the *American Journal of Physiology*, Dept. of Physiology, Univ. of Georgia School of Medicine. This report mentions two "traumatic procedures", one, "digital manipulation" and two, beating "all faces of the thighs".

(66) Performed at Columbia University, Jan. 1947. Reported in the *American Journal of Physiology*, Vol. 148, pp. 98—123.

(67) See Footnote (65) for digital manipulation reference.

Another of many other methods for producing experimental shock is by extensive bleeding. In their efforts to establish "a reliable method for inducing irreversible hemorrhagic shock in dogs, three vivisectors of the Army Medical Centre, Washington, D.C., "sedated" the dogs and bled them until cardio-respiratory failure occurred. "The most striking pathological findings were marked congestion and mucosal necrosis (gangrene) of the cecum and colon. Copious bloody diarrhoea was associated with this bowel pathology (*American Journal of Physiology*, Dec., 1955).

(68) *American Journal of Physiology*, July, 1944; Swingle and Kleinberg of Princeton University. Commenting on this experiment in 1944 (*see book, "Why Vivisection"*, by M. G. Thompson, p. 60), an anti-vivisectionist wrote, "Although hospitals all over the world are now filled with the victims of every type of shot and shell wound, the vivisector insists on producing artificially in animals conditions which he fondly hopes are similar, in order that he may earn his daily bread. Beating to a pulp (with a rawhide mallet) the flesh and muscles in the thighs of dogs, beginning to lose its novelty, vivisectors are turning to other methods of producing fatal shock in dogs."

(called "spontaneous amputation") (69) burning animals in many ways with many types of burn, and other methods, each present a whole field of varieties of suffering which I have no space to mention.

In the class of experiments being considered, those in which no anaesthetics are used or in which anaesthetics are sometimes completely dispensed with, it should be borne in mind that I have touched upon only one type. There are other types, of which one of the most cruel deserves special mention, the testing of war chemicals. How much of this goes on is anyone's guess, since most of it is undoubtedly never reported. One example may give an indication of the agonies endured by animals in this field. For fifty years reports of experiments on rabbit's eyes have been occurring with increasing frequency. Three women scientists (obviously more "scientists" than women) conducted over a five year period in Britain a study of the effect of chemical warfare agents on the eyes of rabbits. They soon dispensed with anaesthetics as such experiments did not "afford any indication of the amount of discomfort, pain" etc. In discussing categories of pain reaction they write, "keeping the eye closed for varying lengths of time indicated some pain, while more violent reactions, such as intense blepharospasm (spasmodic closure of eyelids), rubbing the eye with forepaws, lachrimation (tears), sneezing, licking the lips and squealing, were taken to mean severe irritation and pain". The animals were "kept alive in order to observe the whole clinical course" which in some cases extended up to two months. They state that "roughly 500 eyes were

(69) *The Yale Journal of Biology and Medicine*, Vol. 21, No. 5, May 1949, pp. 401—414: After experimenters had split the muscles of the lower back and dissected the sympathetic nerves which influence the left leg, young dogs had both hind legs frozen "story hard", which took from 5 to 16 minutes in an ether bath at minus 15 degrees centigrade. This freezing was "inflicted" under "light" anaesthesia. Regarding thawing the experimenters write, "The hock was usually warm and enormously distended by the time the toes and plantar skin had thawed..... There was always..... a transudation (oozing) of straw-colored fluid or bloody fluid through the apparently intact skin....."

The result? Four of the nine left limbs and five of the right limbs developed gangrene "leading to spontaneous amputation up to the highest level of freezing." That is, the dogs feet dropped off up to the hocks.

Two other recent freezing references must suffice; *American Journal of Physiology*, Aug. 1956, Purdue Univ.; Exposing rats to extremely low temperatures to determine which sex freezes last and what differences in various age groups.!

American Journal of Physiology, Dec. 1953, New York Univ.; plunging dogs into extremely cold water. Several dogs died during rewarming, all died within 24 hours.

Burning, scalding and baking experiments are so numerous that I will include a few at random:

In *Surgery, Gynaecology and Obstetrics*, Vol. 98 (1954), p. 387; The authors refer to earlier investigations, mentioning, "The laboratory observations of over 1,800 burns done under variable conditions of time and intensity of applied thermal energy."

In the report in *Lancet* (Nov. 25, 1950, pp. 635—641) of the American Symposium entitled "Research on Burns", a number of different methods for burning animals in the laboratory are mentioned, including phosphorous bombs, petroleum bombs, flame-throwers, electric discharges, scalding, super-heated air and steam, lighted petrol.

There is also a lot of burning done under carbon arch searchlights, and there has been extensive baking in hot rooms or ovens. Such powders as magnesium powder with barium peroxide have also been used.

observed in the whole series of experiments". Photographs accompanying the text show the terrible destruction to the eyes which resulted and show the extent to which they must have suffered (70). Another "irritation and toxicity" study done by others mentions, "Irritation of mucous membranes is measured on the rabbit's eye and penis" (71). How human beings, and particularly women, can inflict such intense suffering is beyond comprehension.

One more large class of experiments must be mentioned, in which anaesthetics cannot be used owing to the nature of the experiment. Besides the inoculation and feeding experiments already mentioned, there are many other types falling in this class. Two of the most cruel and the most common are irradiation and gassing. I will mention only one or two experiments in each class.

In the first I quote Dr. Brailsford, who is himself a specialist in radiology (see 20a):

"Those of us who have watched the development of irradiation during the past 50 years know only too well the results of overdosage.... Yet in this article of 1954, an account is given of 37 monkeys which were purposely subjected to overdosage. It is recorded that the range of doses in those experiments extended to one which was almost always fatal. The survival times were 3—22 days. Immediately after the irradiation the animals appeared unharmed when returned to their cages, but after a variable time vomiting began and this was followed by subdued activity. With the onset of diarrhoea and lack of desire for food the behaviour altered and the animal became spiritless..... Great thirst and dehydration was shown. In the final stages they lay prostrate, had severe digestive disturbances, haemorrhages, etc., and became intermittently comatose and breathless before dying. I venture to suggest that no person, who had not been so trained to it, could allow himself to think that such experiments could do aught but degrade mankind." (72).

As an instance of the latter, see *Annals of Surgery*, Vol. 37, No. 2, p. 450, 1953: Pigs were irradiated with X-rays both sides, and then, "Following roentgen radiation the swine were given a 10 to 15 per cent flash burn of the lateral aspect of the trunk". "In the control group mortality was 90 per cent and occurred between the 7th and 19th days....." etc., etc.

(70) "An Experimental and Clinical Study of the reaction of the Anterior Segment of the Eye to Chemical Injury, with Special Reference to Chemical Warfare Agents", a 170 page monograph published by the *British Journal of Ophthalmology* in 1948.

(71) This is from *The Journal of Pharmacology and Experimental Therapeutics*, Vol. 82, 1944, pp. 377—390, entitled, "Methods for the Study of Irritation and Toxicity of Substances Applied Topically to the Skin and Mucous Membranes."

(72) Irradiation experiments are going on in a variety of ways and on a vast scale, monkeys, donkeys, farm animals, and all the smaller species have been irradiated by being fed pellets of radio-active material, or being exposed to simulations of the effects of the atomic bomb.

Besides all this there are the "usual" irradiation experiments with X-rays etc., which have been going on for decades.

An example in the 1st category is seen in *Surgery, Gynaecology and Obstetrics* Vol. 98 (1954), p. 387. "Thermal Burns from the Atom Bomb". 91 white pigs, 8 black pigs, and 15 dogs were exposed to an atomic bomb explosion. The healing of the burns in the different animals took 8 to 19 days after exposure.

It should be noted that few of the atomic burn experiments are reported in regular medical journals, although reports of animals being flown through radioactive clouds, shot up in rockets, etc., appear in the newspapers from time to time.

In the second category, a recent example is found in the *British Journal of Radiology* of March 1956: Monkeys were exposed to "whole body irradiation" with X-rays. "50 animals" are mentioned in one place, and a table for 44 monkeys, apparently other than the 50, also appears, but the number of animals used is not stated.

In the worst gassing experiments we come upon a cruelty so gross that the other horrors already mentioned pale before them. It will be remembered that during the first World War soldiers who had been exposed to poison-gas were screaming and begging the doctors to put them out of their misery. It was reported that some doctors could not stand to see such suffering and complied. Yet thousands upon thousands of animals have been subjected to the same and similar gases, animals of all types from horses down to canaries, nearly 5,000 having been used in one experimental station (Porton) in peacetime during a nine year period, of which more than 1,500 died. (73). Prof. J. B. S. Haldane, one of Britain's poison-gas experts mentioned in his book, *Callenicus*, that during the first world war a good many soldiers at Porton objected to experiments which inflicted such suffering on the animals and "did not conceal their contempt for people who performed them". Poison-gas experiments have been going on ever since, and no one will ever know how many animals have been used all over the world in all these years. In 1940 the same disgust was evidently felt by numbers of soldiers, who expressed their horror of what they themselves had seen and signed anti-vivisection petitions. One electrician described his experience in these words:

"The firm for which I work undertook to make some new installation at Porton, and one day I got on to the wrong landing and open a door by mistake. At first I thought I was ill. I thought I was seeing things, and then I went a little nearer and looked.

"It was a little monkey enclosed in a glass case—a sort of box. Its eyes seemed to be falling out and it couldn't breathe. It was in dreadful, dreadful distress. I just forgot everything and went near, and said something to it, and it buried its head in its arms and sobbed like a child. I never slept that night and next day managed to go back to the same room; but it was nearly finished by then. It had sunk to a little heap at the bottom of the glass case."

The remarks of an ordinary human being are certainly refreshing and renew one's faith in mankind after too much reading of the cold-blooded accounts of our "great men of science".

"To facilitate packing each monkey into a suitable container a short duration anæsthetic was used."

"The symptoms during the three weeks following irradiation included loss of appetite, vomiting, diarrhoea and weight loss. Haemorrhages and epilation (loss of hair) occurred and there was a tendency to infections.

Of the group of 44, 18 died within 18 days and one much later. With others, the word "recovery" is generally in inverted commas, presumably meaning that they survived but that is all.

American Journal of Physiology, Sep. 1955, Univ. of Utah: 23 rhesus monkeys given X-ray irradiation and bled before and after for blood studies. Animals were unanaesthetized and "uncooperative"; maximum survival was 15 days.

American Journal of Physiology, Sep. 1953; radioactive material inserted into stomach in a rubber balloon, which was then inflated. After the third week the dogs could no longer eat without vomiting, and after some days they refused to take food or water and took none thereafter. "Several kinds of experiments were done on the dogs". "Retching could be induced almost invariably by light stroking of the surface of radiation ulcers with a glass rod." "..... at death 24—52 per cent of body weight had been lost."

(73) Parliamentary Reports regarding experiments at Porton, Wiltshire, the Experimental Station of the Chemical Warfare (Defence) Research Department.

"For security reasons" very little is ever reported about warfare experiments on animals, and very few even among scientists are allowed to witness such experiments (74). However, a report does occasionally appear, as in *The Lancet* (Nov. 1946, p. 670). One of the most terrible of the lung-irritant gases is Phosgene. "Unanaesthetized dogs and goats were exposed to phosgene....." 13 dogs are mentioned in the report. I will quote only a few sentences:

"Two dogs were exposed to phosgene concentration for 10 minutes. Both were very ill sixteen hours later, with laboured respiration, cyanosis (blue), and collapsed peripheral veins..... After transfusion the symptoms became worse, one dog, dying two hours after, and the other seven hours after, transfusion."

It might be noted at this point that our committee deleted a clause from the draft Bill the intention of which was to prevent the use of animals for testing war weapons, I presume poison-gas would be regarded as a weapon of war.

Gassing is used extensively for more ordinary experimentation, however, and these reports are more frequently published. One example is found in *The Journal of Industrial Hygiene and Toxicology* for March, 1947, p. 123. Nine species of animals, including dogs, cats and monkeys were exposed to gas (Methyl Chloride) "on a schedule of six consecutive hours a day for six days a week". I quote a few sentences regarding the monkeys :

(74) Accredited representatives of the medical profession who wished to visit Porton with the object of securing a coldly scientific account of what was taking place, were refused permission to do so by the authorities in 1931.

One description of the way animals react to poison gassing was given in the *British Medical Journal* (Dec. 4th, 1915, p. 803), by Dr. Leonard Hill, who was Chairman of the Chemical Warfare Medical Committee in June, 1918:

"Animals exposed to chlorine exhibit first of all profuse watering of the eyes and salivation; they make efforts to escape, and if the chlorine in the chamber is not mixed by a fan, but sinks to the lower parts, they hold up their heads as high as possible to escape breathing the more concentrated lower stratum. The respiration soon becomes quickened, and then, as the oedema of the lungs and exudation into the air tubes increases, the respiration becomes slower and laboured. The obstruction to the entry of air becomes great and, in consequence, the lower ribs are drawn in with each inspiratory gasp. The mouth gapes open and a frothy secretion hangs round the orifices of nose and mouth. The whole effort of the animal is given up to breathing; finally, it falls over exhausted, the breathing becomes rarer and shallower, and it dies. If in the stage of laboured breathing the animal be removed from the poison, it generally dies within the next 24 hours, but may live longer, to die within a few days. One of our animals died as late as a fortnight after exposure."

This kind of "research" reminds one of the words of Hannan Swaffer, "Any nation that treats sub-human animals in this way not only expects war, but *deserves war*".

As regards the more ordinary gassing experiments, a few examples show what severe suffering animals endure in many of these experiments.

From the example given in the body of the note (monkeys exposed to Methyl Chloride) I will quote a few sentences relating to other animals used in the series.

p. 124: "Dogs. There was considerable uniformity in the symptoms of dogs whether death was brought on by exposures to 3,000, 2,000, 1,000 or 500 p.p.m. Most dogs vomited a clear, acid, mucous material, sometimes tinged with bile, during the first few exposures."

p. 125: Two litter puppies were exposed from the age of four weeks. "After eleven weeks of exposures", one of the puppies "had intermittent convulsive seizures. When being fed its mouth would fly open, remaining for some time locked in that position, with the tongue in sustained retraction. There were attacks of hiccups, audible grinding of the jaws, and the face had the expression of risus sardonicus (a)

"Monkeys. Toward the end of a week of exposures to 2,000 p.p.m. monkeys became unsteady, swaying and falling over. . . . One monkey had convulsions in the night after the fourth daily exposure, hurling itself head first against the sides of the cage so that face and forehead became covered with bloody abrasions. After a minute or two the seizure terminated in clonic convulsions followed by a period of unconsciousness. Several such attacks were witnessed on the fifth day of exposure and the monkey died on the sixth morning. Other monkeys followed a similar course in the second week of exposures."

"In the fourth month of exposures to 500 p.p.m., 2 monkeys became very emaciated and were frequently prostrated, dying after sixteen and seventeen weeks of exposures respectively."

The mention of these various experiments on monkeys brings me to the question of the export of monkeys from India for all these purposes. Leaving alone those which are killed in the manufacture and testing of polio vaccine, a percentage of our monkeys, whether it be a smaller or larger percentage, are used for all kinds of other experiments. It will be remembered that when 394 monkeys were accidentally suffocated to death at the London airport, the R.S.P.C.A. did not prosecute for neglect or cruelty. The monkeys were intended for research purposes, and the suffocated ones probably had by far the happier fate.

grinning expression from spasm of the facial muscles). The other pup showed tremors, was able to stand briefly when placed in position, but could progress only by bouncing, supported by the front legs with the hind legs widely abducted."

Journal of Physiology, May 15th, 1949, Royal Naval Physiological Laboratory, Alverstoke: Cats placed in a sealed gas chamber and exposed to 100 per cent pure oxygen until the experiment was terminated by a convulsion or the death of the cat. One cat was moribund after 72 hours' exposure and was killed by decapitation; a second died after 70 hours' exposure; a third convulsed after 67 hours and was removed from the chamber, after which it had a further 15 convulsions at short intervals and was then killed. Another cat had 45 days intermittent exposure, then 45 days later it was put back in the chamber and took 163 hours to die. Etc. etc.

For the last example I will take one of the gassing experiments which shows how prolonged the suffering sometimes is. *Journal of Neuropathology and Experimental Neurology*, Vol. 4, Oct. 1945, pp. 324—353: "Degeneration of the Basal Ganglia in Monkeys from Chronic Disulphide Poisoning"; The following is all verbatim quotation:

"All of the animals were healthy young monkeys, exact age unknown. . . .

"Monkey C.B.A. This animal was first exposed to carbon disulphide vapor on December 1, 1938 and was subjected to it without interruption and without appearance of any significant signs until Aug. 20, 1939. . . .

"The animals were exposed daily, five days a week."

"Aug. 30, 1939. It was now first observed that the monkey's appearance and behaviour had begun to change. . . . reacted less energetically in combating a stick or escaping capture. . . . It began to eat less well and to lose weight. . . . It also began to salivate profusely. These signs persisted and gradually increased from this time on. . .

"Nov. 24, 1939. The condition of the animal was essentially unchanged except that the tremor had become more severe. Frequently the animal would have paroxysms of rather coarse rapid tremor of the arms and hands. . . .

"Nov. 29, 1939. . . . Attempts to assume an erect position. . . . produced violent. . . . tremor of the thighs or. . . . of the legs, spreading at times to trunk and head. . . . Stimulated by vigorous prodding, there occurred, after an interval. . . . a cay. . . . and a rather rapid but clumsy attempt to grasp and bite the stick. . . .

Dec. 1, 1939. . . . When tapped sharply on the nose with a stick, the animal merely blinked its eyes and made no withdrawal or defensive movements. . . .

"Dec. 7, 1939. More helpless. Unable to sit, stand or walk. When allowed to drop the animal fell heavily, bumping its head on the floor. . . . The monkey could scarcely eat.

"Dec. 8, 1939. Extremely helpless. . . . The animal was now unable to eat and was tube fed.

Those who know anything of animals will remember how sensitive and intelligent a monkey is and can imagine the suffering they go through in being trapped, kept in cages, taken on long journeys and kept under unnatural conditions, finally at best to be killed, or at worst, to be tortured to death. If we refuse to take the trouble to handle the problem which we have ourselves created in any better way, the very least we could do is see that the monkeys are killed on the spot in the most humane manner.

What has been done by the Government and what we recommend is good but hardly sufficient to prevent cruelty. Are we to take the word of exporters and drug companies engaged in providing and using monkeys as a *business* by accepting "undertakings" which have no real legal significance and where no adequate investigations are possible? Exporters are earning lakhs and drug companies millions of dollars on this business. The six firms licensed to produce Salk vaccine in the United States were reported to be likely to make from it a joint profit of about seven million pounds less taxes in the year 1955 (75). The News Analysis Group of Everett, Washington (U.S.A.) has published the following quotation, which, to my knowledge, has not been challenged:

"Dec. 11, 1939. Sacrificed.....

"Monkey C.B.B.

"Nov. 29, 1939....*When prodded with a stick* the animal responded by pushing its food dish around the cage, and made few attempts to defend itself by grasping and holding the stick. Instead, it would retreat to corner of the cage and, with bowed head and closed eyes, *allow itself to be pommeeled*....

"March 1, 1940. For the first time the monkey showed more definite and severe signs. It sat in the corner of the cage with the trunk completely flexed so that the head was between the hands....Placed on the floor it ran aimlessly about the room, at times attempting to get under or behind furniture....It attempted to jump from the floor onto objects but invariably failed and fell back to the floor in a heap.....

"March 1, 1940. For the first time the monkey showed more definite and severe position, slightly off balance, for minutes at a time. However, in response to *strong stimulation* there was scowling and there were reactive movements to *loud noises, prodding* and so on....

"June 18, 1940....In the open the monkey moved freely and rapidly....but tired easily and then moved slowly and awkwardly clinging motionless to the side of the cage for long periods.....*Pin-pricks* over the front and back of the thighs, elicited a reflex jerk of the limbs, and over the abdomen, of the abdominal muscles and legs..

"June 28, 1940....Condition of animal unchanged. Sacrificed...." (My italics).

Monkey C.B.C., also gassed and tortured like the others, reached the following state just before being killed :

"All movements were accompanied by rapid coarse action tremors. From time to time the monkey was seized with a generalized clonic tremor (but not a convulsion) violent enough to shake its cage. Such were especially marked during its struggles as it was tied to the animal board. Sacrificed with ether."

In reading the cold-blooded accounts of such experiments in which the suffering is intense by itself and made worse by the experimenters, the words of that great Christian opponent of Vivisection, Cardinal Newman, come to mind :

"...it is the cowardice and tyranny of which they are the victims which makes their sufferings so especially touching. There is something so very dreadful, so satanic in tormenting those who never have harmed us, and who cannot defend themselves, who are utterly in our power, who have weapons neither of offence or defence, that none but very hardened persons can endure the thought of it."

(75) *Daily Telegraph* (May 3, 1955); "The Wall Street Brokerage firm of Carl Loeb, Rhodes & Co., recently reported to its clients that it estimated the six firms licensed to make Salk vaccine in the United States would make a joint profit of about £7 million less taxes from it this year."

"Dr. Robert R. Cutter, President of Cutter Laboratories (whose vaccine thus far has been mainly responsible for the children getting the disease) stated to stockholders of his Company:

"The Company is now up to its ears in Salk vaccine production.... In getting into this vaccine, we got into a barrel of monkey business..... I don't mean monkeys by the dozen. I mean monkeys by the hundreds..... But then a little bit of monkey business mixed judiciously with regular business, makes regular business, better business."

The impression in foreign countries also seems to be that our Government is interested in continuing the export of monkeys, not only to get rid of them; but because they are big dollar earners (76). I know that the consideration was rather an appeal on behalf of the children of other countries, but this unfortunate impression remains.

As far as the children of other countries are concerned, the Salk polio vaccine has not clearly established its protective value to the satisfaction of disinterested medical authorities, while it has given the disease to a large number of children and people who contacted them (77).

Cutter Laboratories of Berkeley, Calif., whose vaccine was chiefly implicated in the Salk vaccine disaster, destroyed vaccine estimated to be worth one and a quarter million dollars, Cutter stock slumped from \$15.50 to \$8.75 per share (*Time*, June 20th 1955). And yet a few weeks later the Cutter Laboratories announced that sales were running slightly ahead of the previous year's figures—\$14,850,000.

(76) This is a very wide-spread opinion, and has appeared in many newspaper articles etc., of which I include two references:

Manchester Guardian (April 27th, 1955) "It is thought that the rhesus monkey population of India is somewhere about half a million, so the export of these animals was a handsome source of income, especially of dollars."

News Chronicle (July 4th, 1955): A report from New Delhi mentions that India cannot afford publicity, as the monkey is sacred to Hindus, but is reluctant to stop exporting her most valuable dollar earners which destroy ten per cent of India's crops.

Even the Public Relations releases of our embassies give the impression of a purely commercial attitude about this trade in living creatures. For example, the following appeared in *India News* which is issued by the P.R. Dept. of the High Commissioner for India, London, on February 13th, 1954:

"India's Animal Exports"

"India exported birds and animals worth about four million rupees during 1953 to America, Europe, and Japan. Exports during April and September of the same year amounted to Rs. 2.33 million—more than half the value of exports.

"The major part of these exports were monkeys. Nearly 12,000 of them were exported during the year. Thousands of monkeys are experimented upon in American and European laboratories conducting research in polio and tuberculosis every year. The grain eating Rhesus monkeys from Punjab and Uttar Pradesh are most desirable for such research work. Average price of a monkey exclusive of shipping charges is about 6 dollars. The long-tailed monkey fetches a price of 90 dollars."

(77) The Salk polio vaccine, like all of the well-advertised, expensive products of animal experimentation, is both futile and dangerous. Its protective value is doubtful to the point of total uncertainty, with most of the facts against it, while its dangers are considerable among the known, and potentially very serious among the unknown. These statements are based upon the expressed opinion of the highest medical authorities, especially in a country (England) where medical authorities may be expected to exhibit a more disinterested and impartial judgment.

It must be borne in mind that enormous annual profits (*see* 75) to drug companies, plus large profits on injections to doctors (*see* 84), plus big financial awards

We should also keep in mind in considering the export of monkeys the sentiment of the Indian people taken as a whole. The vast majority of Indians think it is a vile trade and should be stopped. This feeling should not be disregarded.

From all standpoints, therefore, except naked commercialism, this export of our most sensitive wild creatures to destruction or torture in other countries must be prohibited.

and honours heaped on experimenters (*see below*), plus large sums spent on advertising, all add up, through various inter-dependencies, to medical associations, drug concerns, doctors, foundations, health services, and communications (newspapers, radio, TV) all being far from impartial in relation to such a widely publicized "great medical discovery" as the Salk polio vaccine.

Unfortunately, propagandizing also creates wide-spread illusions in world public opinion, noisily fostered by interested medical authorities and quietly condemned by those medical authorities who have studied the question most deeply and know most about it.

Dr. Scheele, the American Surgeon General, announced (*Lancet*, June 4, 1955) the safety of all Salk vaccines produced by American firms other than Cutter Laboratories. The same Dr. Scheele was reported in the *New York Times* (June 8, 1955), which is considered a reliable newspaper, as having told the American Medical Association that the Salk vaccine is difficult to make and that no batch can ever be proved safe before it is given to children.

The latter statement is liable to be the correct one, for a good reason (*see below*), and that simply means that the authorities are experimenting on American children to determine its safety. It is a vast, dangerous gamble, for reasons given below, and as disinterested authorities have pointed out, nothing much has been expected from it, at least as regards good results.

The great harm these propaganda efforts do in playing upon fears and building up hopes to keep the donations rolling in to the foundations and the experimenters busy in the laboratories has been clearly indicated in what *Time* calls the "vaccine snafu". Commenting on the Cutter incident, *Time* (May 30, 1955) stated: "In retrospect, a good deal of the blame for the vaccine snafu also went to the National Foundation (for Infantile Paralysis), which, with years of publicity, had built up the danger of polio out of all proportion to its actual incidence."

"What makes us truly apprehensive," writes the *Journal of Pediatrics* [July, 1955; as quoted in a *Chicago Tribune* (editorial)], "is the fact that there are numerous other 'fund for a disease' organisations. Seeing the financial success of the polio foundation publicity experts, what is to prevent others from adopting similar methods? *There are other diseases far more common and far more dangerous in their crippling and death rates than polio*, for example, rheumatic fever and cancer. Think what would happen if a similar publicity stunt were developed for a promising experimental cancer cure." (My italics).

As a matter of fact, there have been any number of publicity stunts for promising experimental cancer cures; they were simply not as well organised, nor did they have the support which the polio foundation had. The enormous amounts of money involved may be seen in the fact that the National Foundation for Infantile Paralysis announced that the cost of developing the Salk Vaccine was twenty-five million dollars. The *Financial Times*, in commenting on the new British polio vaccine in January, 1956, mentioned that, "Altogether the British programme of research had amounted to a sum in the region of £600,000."

How much of this has probably gone into animal experimentation can be gathered from the testimony of Dr. Joseph S. Wall before a Congressional Committee back in the days when the National Foundation was young. Dr. Wall, professor of diseases of children at Georgetown University Medical School, testified:

"Not a penny of that fund will go to buying a crutch for a crippled child. Not one dollar of it will go to President Roosevelt's pet foundation in Georgia. The majority of the dollars in that fund will go for the purchase of monkeys in order that we may carry out proper animal research."

How much money has been poured down the drain of vivisectional futilities we will probably never know. The U.S. Public Health Service Officials asked Congress

When one considers the vast mass of experimentation going on in the world today one is appalled at the ruthless exploitation of a kingdom of nature which stands almost in the same relation to us in point of development and dependence as our children. Consider that in England in 1955

for thirty million dollars to distribute to the States to purchase vaccine. Every dollar paid to the drug companies, means more monkeys killed for production and testing.

What is the result of all this gigantic expenditure in money, effort, talent, and pain and misery for monkeys? We have another delusion in the public mind and another subtle poison in the public body, so to speak. Either its fallacies and dangers will be properly estimated and it will be discarded in a few years as so many other such "discoveries" have been, or the weight of the huge investment in money and prestige, i.e., the need to save equipment, face and profits, will prevent a valid assessment and another medical dogma will be borne to militate against future generations as the vaccination and other dogmas now do against us.

To appreciate the reality of the latter possibility it is important to remember the reluctance medical and health authorities have always shown to accept and disseminate the dangers and risks connected with any of the "pet" projects or ideas of the profession. The authorities are always anxious to avoid prejudicing public opinion against inoculations (see Medical Memorandum 324/B.C.G., U.K. Ministry of Health regarding "Possible undesirable results" of B.C.G. vaccination prejudicing public opinion against inoculations in general). This anxiety is justified in view of the fact that a mere impartial study of official statistics will in itself prejudice anyone against inoculations. But few study them even among doctors, and it is reports of immediate dangers, and distressing complications personally experienced or seen, which really affect public opinion. So it is perhaps natural that the authorities are verbose when it comes to the expected merits of anything they are developing and applying but quiet when it comes to the actual demerits discovered through experience. For fifty years the connection between smallpox vaccination and post-vaccinal encephalitis was officially denied until an official inquiry finally established its existence with a definiteness which ruled out further denials. Thereafter the British Ministry of Health kept the connection a secret for years.

Next came the connection between diphtheria immunisation and polio. In 1944 (Everybody's Political What's What), George Bernard Shaw referred to "the same suppression of the fact that it (diphtheria immunisation) has been followed by spells of infantile paralysis more or less prolonged." In the House of Commons on Nov. 24th, 1947, Mr. Bevan said, in reply to a question, "As I am advised, there are no medical grounds for attributing to vaccination or diphtheria immunisation any connection with poliomyelitis." But Dr. McClosky of Melbourne reported finding a distinct connection, to the extent that out of 31 polio cases occurring within three months of injection, 30 suffered actual paralysis, mostly severe or very severe, and the paralysis was most pronounced in the limb which had been inoculated. (See *Lancet*, Apr. 8th, 1950). After that a number of other reports appeared with similar findings, and the Ministry of Health reported in 1951 that investigations had been undertaken, and advised that, "Until our knowledge is more precise it will be wise to suspend immunisation when poliomyelitis is prevalent in any district."

Studies have since indicated that one of four main types of predisposing factors for succumbing to paralytic polio consists of inoculations of vaccines and serums, and injections of drugs like penicillin. It has been pointed out that there can be little doubt, therefore, that polio vaccination itself may provide the very conditions which favour an attack. A correspondent to *Lancet* (March 6th, 1954, p. 516) points out that "A child who is injected three times is at risk three times; there is replication of exposure." It is admitted that "there is unfortunately a very small but definite risk that the vaccine may produce poliomyelitis" even with ".....a vaccine, which has passed the most rigorous testing." (Editorial, *Lancet*, June 11th, 1955, p. 1207). Dr. W. Ritchie Russell, a top-bracket neurologist at Oxford University and one of the greatest authorities on this subject in England, favours a live virus oral vaccine, because if "poliomyelitis is precipitated by an inoculation the natural defences of the nervous system seem to be ineffective and nearly all such illnesses develop into a paralytic form of the disease affecting especially the limb used for the injection." (*Lancet*, May 21st, 1955, p. 1071).

At a combined meeting of the Canadian and British Medical Associations at Toronto, Dr. Ritchie Russell is reported to have said (*The Times*, July 24th, 1955) that "there were only about 30 or 40 people in the world who fully understood the

nearly two million five hundred thousand (2,476,201) experiments were performed. Of these only 33,017 were done under anaesthetics throughout, and 266,707 had anaesthetics for operational procedures only and were allowed to recover afterwards and suffer whatever pain ensued. That means

viruses, and these experts never expected much of Salk vaccine. 'If it is safe, and if it does something, nobody is going to say that it should not be used. But its effectiveness is not known.' The same report mentions that 'Dr. J. M. P. Clark, of Leeds, said that, "We have not been very impressed with the possibilities of the vaccine. It seems to be putting one risk against another".'

So far, on the basis of U.S. Public Health Service reports, polio keeps on increasing. Besides the known risk that no test will ever be satisfactory to guarantee that a vaccine will not *produce* polio, there is the known risk, for the same reason, that an inoculation may spread polio through susceptible contacts of the inoculated person without affecting the person himself. The contact, or "satellite" cases seem to be as severe as the others; some develop the disease in its severest form. This was seen in the Cutter vaccine disaster. On June 23rd, 1955, the American Public Health Service announced that there had been 168 confirmed cases of polio among the vaccinated with 6 deaths, and 149 cases among contacts of children given the vaccine, with six deaths. How many more cases have developed since that time I do not know, but there are likely to have been more, since according to Dr. Florio, the Denver Medical Officer, some 1,500 vaccinated children of Denver have become "carriers".

Besides these known risks, there are at least two very serious risks of unknown dimensions which have been mentioned by top-ranking authorities: (1) The child may later become *more* susceptible to polio than an unvaccinated child; and (2) The child may become sensitised to a dangerous extent by repeated injections of monkey kidney vaccine.

Taking the latter point first, *Lancet* mentions (leading article, June 11th, 1955, p. 1207). "In addition (as we have previously pointed out) there is a risk, of unknown dimensions, that repeated injection of a vaccine prepared from monkey kidney may eventually sensitise the child in some harmful way. This could conceivably have more serious consequences than the accidental infections on which attention has naturally been fixed so far." The *Manchester Guardian* (April 15th, 1955) reported that, "One of Britain's greatest physiologists said today that if it means that a child should be re-inoculated at frequent intervals with a preparation derived from monkey kidney 'it is terrifying in its possibilities'. Among them is the risk of the child's developing sensitivity to some of the ingredients of the vaccine".

Dr. W. Ritchie Russell mentions the other long-term risk in a letter to *Lancet* (March 10th, 1956). Other points he brings out are also important. On June 16th, 1955, Dr. F. Kingsley Sanders brought out the point (B.B.C., *London Calling*) that to protect one potential paralytic it would be necessary to vaccinate at least 4,000 (U.S. figures, more in Britain) who would never have become paralysed, and among whom we might expect 16 reactions to inoculation. Dr. Ritchie Russell points out more definitely that it would be necessary to inject 12,000 in order to protect three from paralytic polio, not just one injection but two or three for each child. These figures bring to mind the remark by Drs. C. H. Andrews and W. L. M. Perry (*Picture Post*, May 7th, 1955), "Polio is a rare disease..... If the money which will have to be spent on vaccinating the whole population were spent in improving road conditions instead, more lives would probably be saved and more crippling avoided".

Dr. Ritchie Russell goes on to point out that even after these injections, when they are all (perhaps) immunised, "unfortunately it may only persist for a year or two". Eventually, he writes, the partial protection may not only be lost, but reversed, i.e. the child may become *more susceptible* to polio than an "unprotected" one. Dr. Russell concludes with the following words: "It seems to many that the long-term prospects of those now being given the Salk-type vaccine are so uncertain that the present American programme may be correctly described as a *gigantic gamble*". (My italics).

So much for the futility and dangers of the monkey kidney vaccine. It is illuminating to remember that Dr. Salk announced he had used 15,000 monkeys in his research. He was only one of many many experimenters who had been working on the same problem for decades. Many kinds of "monkey serums" have been

that 2,176,477 (87 per cent) were performed entirely without anaesthetics. Cats, dogs and horses were used in 12,697 experiments. The figure keeps on rising every year; 42,714 more experiments were performed in 1955 than in 1954 (78).

Estimates for the United States, where much more experimentation is done but no overall figures are available, place the number of animals vivisected annually at about eight million and the experiments done without

hailed in the past. Furthermore, the Director of Scientific Information of the National Foundation for Infantile Paralysis, Inc., has suggested that one monkey's kidneys provide enough vaccine for about 2,000 children, and that to provide three injections for each of the children born each year (30 million) would require the death of 15,000 monkeys a year, not including those required for testing each batch of vaccine. He was hopeful that "since thousands of Rhesus monkeys are available in India" the supply would be quite equal to the demand. But these are the monkeys needed in one country only and for one particular problem only, although that is the biggest one as regards consuming monkeys.

The U.S. Government, as announced by Dr. Scheele, intended to inoculate 57 million people before August 1955. Dr. Salk has received many rewards, tangible and intangible, two of which are the Congressional Medal from the hands of the President and a \$10,000 check from an insurance company; hundreds of thousands of monkeys have endured untold suffering, and millions of children are receiving yet another long-term poison. On top of this we learn from the *Beckenham Journal* (June 11th, 1955) that the Wellcome Research Foundation has had to drop plans for the production of a vaccine they were working on, which they consider much superior to the Salk vaccine. "Mr. Rogerson (Public Relations Officer for the Foundation) said Wellcome's, in company with other firms, still thought the Salk vaccine was not on the right road. . . . Wellcome's had been tackling a vaccine that could be taken by mouth, probably prepared through eggs and known as attenuated virus". But the Salk vaccine 'ballyhoo' made it necessary to start production on that type.

So after all this, a better vaccine could have been produced through eggs instead of monkeys. If we had refused to send our monkeys, i.e., followed our own conception of morality and justice, research along that line would have been much stimulated and there would have been less suffering for both the monkeys and the children.

Having considered the futilities and dangers of this product of animal experimentation, there remains one result of vivisection which is yet to be considered, that is obstruction to real progress. If vivisection had been outlawed in America long ago, and its products banned, research would have been undertaken on more fruitful lines, and probably polio would have been eliminated as a serious problem long ago. In fact, polio might never have become a serious problem, for there are some specialists in infantile paralysis, like Dr. I. Schmidt of Hamburg, who state, as he did in an address in Amsterdam, that polio is due to poisons in the system caused by vaccination and other "prophylactic" injections. The correspondence between the rising tide of inoculations and the rising tide of polio might make that point of view appear worthy of serious investigation.

(78) These figures are taken from the Annual Return of Experiments on Living Animals under the Cruelty to Animals Act, 1876, prepared by the Home Office, U.K.

The operation of this Act is astonishing. There are 4 or 5 inspectors to inspect more than 5 thousand persons licensed to experiment in more than 500 places while doing more than two and a half million experiments a year, and these inspectors are apparently largely engaged in issuing licenses and other paper work.

The inspectors are evidently all trained vivisectors, and no doubt many of the Advisory Council have also been connected with such work. No R.S.P.C.A. inspector or any other official whose main concern would be more likely to be the animal rather than the experiment is allowed to witness these experiments.

The law has no provisions relating to pain or cruelty which cannot be dispensed with except two contained in some of the exemption certificates one of which relates to severe and enduring pain which, in effect, is to be ascertained at the discretion of the vivisector himself, and the other to "considerable pain" to be ascertained by

anaesthetics at about 89 per cent. These are just two of the countries of the world. As our scientists pointed out to the committee [Report Para. 98(i)]. India is very much behind other advanced countries, and obviously the intention is to catch up as soon as possible. I consider it a magnificent opportunity that we are behind in these cruelties, and before we have allowed them to become established in vast commercial enterprises and Government projects as they are in other countries, we should take advantage of our opportunity for the advancement of the human race by prohibiting animal experimentation now, before it has become a major vested interest. It is a strange argument in favour of animal experimentation to say that the number of animals used for it are negligible compared to those used for food etc. [Report 98(vii)]. It is like saying murder should be condoned because stealing is the more prevalent crime.

We will never develop the art of healing by using such means as animal experimentation. It will be noticed by any thoughtful observer that we are paying a heavy price for our attempts at physical well-being through harmful means. The whole science of medicine by means of the over-emphasis on animal experimentation has developed a body of knowledge and methods of treatment which relate to and cure, if they cure at all, the animal part of man and seem to leave him worse in the purely human sense (79). As the World Medical Association General Assembly reported

the Inspector and applied at his discretion. In the former we are left with faith in the conscientious humaneness of the vivisector as the only guarantee that even this extreme condition of pain will not continue. In the latter we are left with the judgment and humane concern for the animal which may be expected of an Inspector who is also likely to be a vivisector. A question in the House of Commons on July 8th, 1948 brought forth the information from the Home Secretary that no order to kill an animal found to be in considerable pain had been given in the previous five years. We have seen the type of experiments which were going on during those five years.

Although the law has been in force for more than three quarters of a century, there has not been a single prosecution brought under this Act, at least up until recently, and it is doubtful that any vivisector ever will be prosecuted under the Act.

The way the inspection system works is well illustrated by Dr. Brailsford's (see 20a) experience when he was a student. He wrote in his letter to the *Birmingham Post*, "The Home Officer Inspector at the time, used to send the professor a post-card telling him the date and time when he would call to inspect, and we had to see that all was in order for the inspection—that appeared to be the confirmation required: obviously he would not wish to find any irregularity". He goes on to mention the large number of experiments with only three or four "minor irregularities" reported. He continues, "With the knowledge that irregularities in the treatment of human beings by doctors were of a very much higher proportion, since humans are not infallible and subject to all the exigencies of the moment, I cannot believe that these were the only irregularities or that the many more were of such a relatively trifling nature". He goes on to mention that he himself reported the existence of an "overcrowded, ill-ventilated menagerie for vivisection purposes, the stink of which to me was as offensive to the nostrils as the sight was to my moral sense," giving all facts and details to the Advisory Committee, but no mention of this appeared in the Report.

Anti-vivisectionists have always claimed that the original declared intention of protecting animals from cruelty has been perverted in practice until now the only beings efficiently protected are the vivisectors and the only beings efficiently anaesthetised are the public. There is an interesting corroboration of this in the *British Medical Journal* (Dec. 31st, 1949): "Parliament.....through licences issued by the Home Office gives protection to those doing the work". Probably this was a slip, for this opinion, though widely held among medical men, is seldom stated in so many words. Nevertheless, occasionally a licensed vivisector does come right out and say, as Mrs. Grace Eggleton (University College Hospital Medical School) did,

in 1953 (80); "Experience does not seem to prove that man on the whole is getting healthier by every step forward by welfare state. True some old

that "the restrictions imposed by the Home Officer are highly desirable, for they afford the protection of the law against interference from the anti-vivisectionists". In fact this opinion is so wide-spread that scientists interviewed by our committee mentioned it (note the remark in the Report, Chapter III Para 97, "..... it would save them from unnecessary public criticism").

No law on this subject will prevent cruelty, for cruelty becomes inevitable in this type of exploitation. But a law can make a difference in the amount of cruelty, and if we do not have the decency and intelligence to prohibit animal experimentation, we must avoid at all costs this kind of perversion of our intention to protect the animals. The British law is a farce, and a mean, cruel farce as well. We must see that the same thing does not happen here. Adopting the suggestions made by the R.S.P.C.A. (Chapter III, Para. 97, Report) will help to prevent this.

(79) Occasionally, one runs across a specific reference to a specific effect of this type, for example, in the *Lancet*, July 2nd, 1955, in an Annotation: "..... it is not surprising that mental disturbances arise in patients treated with corticotrophin or cortisone; but the cause of these aberrations remains in doubt".

It is in the larger, overall sense, however, that this destructive effect of animal experimentation is seen most obviously. The mental attitude towards the human patient (see 84 & 85) and towards the therapeutic art itself, is distorted through animal experimentation (and human experimentation); furthermore, the very knowledge and treatments derived directly from such work are dangerous. They are often physically dangerous, as we have seen in so many cases, and there are many more instances. But I contend that their more subtle effects are even more dangerous.

One or two instances will suffice to demonstrate the possibilities. We have seen how many people are killed by post vaccinal encephalitis (inflammation of the brain) from smallpox vaccine (33). Many others are made seriously ill. But what about all the remainder who have no apparent ill-effects. A "prophylactic" so poisonous as to kill healthy people by damage to the brain is not liable to leave other healthy people absolutely unaffected. Who knows how much permanent and unidentifiable damage is done to the brain and nervous system of every single person who is vaccinated?

As another brief example let us take insulin, one of the "great" discoveries of the vivisection laboratory, which has prevented all real progress in treating the disease. Not only have death rates gone on increasing all over the world (except for the rationing period during the war, which is instructive), but the insulin diabetic has to face endless inconvenience and deadly dangers. Here we are concerned with only one of these, the destructive effects related to the brain. "Insulism" may take the form of convulsions, giddiness, tremors, double vision and weakness, and it has far-reaching mental effects in a good proportion of cases, such as the patient becoming dazed, wandering about aimlessly, doing extraordinary things. Prof. Soone found such effects transiently in 54 per cent of his insulin-treated patients, and Norgaard observed insulinism in 220 out of 777 patients (*British Medical Journal*, July 8th, 1933). Dr. Hattori of Japan reports the same sort of complications. Furthermore, a form of hydrocephalus (brain dropsy) has been observed as a complication of insulin therapy (*Lancet*, Dec. 30th, 1950). Here we notice complications which give an indication of the type of damage insulin may produce—the cause may be said to be physical, but the complications are evidently psychological in character in many cases.

These and other instances make one pause to consider whether this is not a general effect connected with the "animalized" part of allopathic medicine. If we note that psychological disorders like "nervous breakdowns" and mental illness have been increasing very rapidly in this century and then remember that animal experimentation has been jumping by leaps and bounds during the same period, reaching now a rate of increase in the U.K. of 42,000 experiments per year, a relationship between the two seems likely, in view of the many specific instances which point in the same direction.

The "animalized" view of man which is fostered by animal experimentation produces remarkable wastage and blunders in other ways which have psychological consequences and delay the proper development of methods for treating the growing

scourges have been taken away from him but new and more insidious ones are taking their place. Statistics on delinquency, divorce, drug addiction illness, and various psychosomatic disturbances are not encouraging”.

menace of insanity. Experiments on the brains of animals have been going on for three quarters of a century. They are in the main of three types: Mapping the brain (localisation), observing the effects of mutilations and induced conditions in relation to the brain, and insanity experiments.

To give a brief idea of the significance of these, I will mention recent examples:

Keio Journal of Medicine, Vol. I, No. 3, Nov. 1952: Series of complex brain experiments on 14 dogs and one monkey, *no anaesthetics used for any part of the experiments*, duration of electrical or chemical stimulations of the exposed brains varied from 13 minutes to 2 hours and 23 minutes. Portions of the skull were removed and various areas of the brain stimulated, certain portions of the brain being cut while tracing the pathway of nerve impulses. The author himself refers to similar experiments done 50 years ago. These present Japanese experiments indicated that five different centres could activate one function (mastication). This can hardly be explained on the localization theory which has been the basis for all the endless brain-mapping experiments which have been going on since last century. Localisation is the kind of mechanistic idea which is typical of the vivisection mentality.

Here is what the eminent neurologist, William Goody (M.D., M.R.C.P., Assistant Physician to National Hospital and Consulting Neurologist, University College Hospital), and his colleague, Wylie McKissock (O.B.E., M.S., F.R.C.S., Neurologist Surgeon to the National and St. George's Hospitals) have to say regarding localisation.

“Localisation is an artificial observer-made attribute of the brain..... The brain and its ordinary owner have no knowledge whatever of localisation, and, except for those interested in it as a subject for study, it is of supreme indifference to the individual and his behaviour. Localisation in a rigid sense is an abstraction of the sort which may take us further and further from reality”. (*Lancet*, Mar. 3, 1951, p. 482).

It is just this abstraction which decades of “cortical stimulators” have been avidly pursuing. For other references of recent, similar experiments: (1) *American Journal of Physiology*, Sep. 1952, Yale Univ.: Up to 28 electrodes implanted in the brains of cats, “the unrestrained unanaesthetized” animals were electrically stimulated “for several weeks or months under normal conditions”. (2) *Medical Journal of Osaka University*, Vol. IV, Nos. 2-3, Nov. 1953, p. 175: Electrical stimulation of rabbits brains, 99 rabbits used, a hole drilled through the skull and an electrode-holding mechanism screwed onto the skull, *no anaesthetics used except at one point to facilitate “the determination of spinal fluid pressure”*. The article contains 43 references to similar experiments.

Numerous references could be given. Some experimenters have spent most of their lives on this one type of brain experiment. For example, Prof. Hess of Zurich (*Lancet*, March 17th, 1951, p. 627) has devoted more than a quarter of a century to a study of the brains of “fully conscious and freely moving animals” (cats).

The description of the work of Prof. Hess, summarised in two monographs which gained for their author a half share in the Nobel Prize in 1949, seems to show that his 25 years of intense research has led to no knowledge which could be useful in the alleviation of human suffering, nor has it diminished the frequency with which nearly identical experiments are being undertaken by others (see e.g. (1) above). Moreover, as the article in *Lancet* mentions, “The fact that electrical stimulation can produce these effects, however, does not prove that it is a normal controlling mechanism”.

Three pages of the *Lancet* article are devoted to the reactions of the unanaesthetized cats to the electrical stimulation and the description leaves no doubt as to their suffering. Reactions included increased blood-pressure and respiration, panting, licking, choking, vomiting, micturition, and defecation, rage, abnormal hunger and thirst, etc.

These experiments are also done, as it were, in reverse. That is, the limbs etc. are shocked and the resultant cortical activity observed in the exposed brain. (see, e.g., *American Journal of Physiology*, Nov. 1955, Morin: 26 cats, part of brain and spinal column exposed, observed reactions to tapping feet and to applying electric shocks to nerves of hind legs. The experimenters also remove sections of skull and implant permanent “windows” for observation purposes. There are an amazing variety of things to be done to keep oneself busy if one enjoys this sort of thing!

In other words, all those diseases which stem from unbalanced conditions of the inner man—the emotions, mind and spirit—these are rapidly increasing. Insanity is reaching alarming proportions. In the U.S.A., where,

There is, for example, no end to the things which can be done under our second category, for obviously mutilations and induced conditions are limitless. An example of this type is found in the *American Journal of Physiology*, Nov. 1953, Morin and Green: 22 guinea pigs and 10 cats, brain extensively mutilated and electrical stimulation applied. Most of the animals were allowed to regain consciousness after the initial operation and then immobilized with *Tubocurarine* and stimulated. They mention, "The significance of the observations reported here is difficult to evaluate".

As regards insanity experiments, an example of that type of work is found in the efforts of Dr. Jules H. Masserman. He has been driving animals crazy for nearly a quarter of a century, first cats, and then ten years ago he switched to monkeys. Reports of his work can be consulted in *Time* magazine, June 8th, 1942, (cats) and in the *Chicago Sunday Tribune*, May 10th, 1953. The newspaper article is entitled, "They are Making People Out of Monkeys!" but a perusal of the article would give any thoughtful person the impression that some people are making monkeys out of themselves. "A monstrous mechanical apparatus was built with aluminum dome, fluorescent lights, coloured bulbs, metronomes, buzzer signals, yards of pipes, valves, and multi-wire cables. . . . (all) can be electrically operated from a specially built master control station with elaborate pushbutton panel, venetian blinds, and a one-way window. The experimenter can watch the monkeys through the window but they can't see him".

All this is constructed for the purpose of driving monkeys crazy! "They developed asthma, colitis, tics, hysteria. They fell off perches, became more and more tense, trembling, and frustrated. . . . They lost weight, began having hallucinations. . . . and whenever the snake itself was again exhibited inside or outside the cage their 'phobic reactions' reached intensities of frenzy and panic". This makes it clear that the suffering involved in this kind of experiment is by no means slight.

In attempting cures Masserman tries everything. He has been trying brain operations for difficult cases, but if those mentioned in the article are an indication of his degree of success no operation has proven of any value. A very neurotic cat, after one operation, turned out well physically "but was left hopelessly stupid". Another operation performed on 14 monkeys "also cured their insanity but lessened their intelligence and turned them into sex fiends".

Masserman is quoted as saying, "There is a lot of difference between cats and monkeys in simple cages and human beings in a complex world. We can't know about humans by studying cats but we can't know them *unless* we study cats and other animals. The most we can hope for is that the experiments will give us some fundamental approach to all behaviour". Well, it is interesting to know that we cannot know human beings unless we study cats, etc. One wonders how all the great men of history learned so much about human beings, including behaviour? Now that Dr. Masserman has come into the world, "a pioneer in the field of animal experimentation", what is the "fundamental approach" he has learned from his cats and monkeys?

"Masserman's vocabulary can be as high flown as any, but it boils down to the comparatively simple theory that all behavior is motivated by current physical needs. . . ." Need anything more be said about the destructive effect of this kind of research?

Way back in 1931, Dr. Bernard Hollander, M.D., a distinguished brain specialist, referred to the fact that "sixty years ago (86 now) it was confidently anticipated that these experiments on the exposed brains of living animals would speedily disclose the inner working of the brain, and make mental disorders disappear for ever". He went on to say, "As is well-known, these extravagant hopes have not been fulfilled". He also pointed out that "It was fantastic to expect a solution of the working of the human brain—even that of the ordinary man, to say nothing of great philosophers, scientists and artists—or to get any light thrown on the origin of mental disorders, from the stimulation or destruction of bits of the cerebral tissues of monkeys, dogs, or cats". (*Medical Press*, May 20th, 1931, p. 411).

In his recent work, "Psychosocial Medicine", Dr. James L. Halliday has pointed out that much, perhaps all of the illness in which there is actually organic change—cancerous growth, diseased conditions of the arteries, and so on—is primarily psychosomatic in nature. He suggests that therapy which does not recognize the psychosocial nature of man often tends to make curable illnesses chronic. This

as far as we know (82), the most animal experimentation is being done and that without any control or limit, mental illness has reached such proportions that *one out of every ten* persons spends some part of his life in a mental institution, and *one-half* of all the hospital beds are occupied by "mental" patients.

In that very interesting book, "Man, the Unknown", Dr. Alexis Carrel states the situation thus (Chapter I): "While infantile diarrhoea, tuberculosis, diphtheria, typhoid fever, etc., are being eliminated, they are replaced by degenerative diseases. There are also a large number of affections of the nervous system and of the mind. In certain states the multitude of the insane confined in the asylums exceeds that of the patients kept in all other

is especially true "whenever therapy becomes very intensive, very elaborate and very impersonal".

Considering all this it may be said that there is some justification for thinking that the products of the vivisection laboratory are damaging to man's health in a number of ways, the most sinister of which relates to psychological and spiritual well-being. In addition, the mentality it develops and the animalistic, very elaborate and very impersonal therapy that mentality fosters obstructs the introduction of proper treatment and tends to fix curable illnesses rather than curing them.

(80) A dispatch from The Hague in the *Hindustan Times* (8-9-53) under the title "New Diseases Afflict Mankind. World Medical Body's Report".

(81) Two reputed scientists have interesting comments on this question of the proofs and denials coming from the same quarter:

Dr. Brailsford (20 a.) in his 1955 letters to the press, mentions that when he was a student, "My professor was the local representative of the Research Defence Society and from all I heard, as a disregarded fly on the wall, the society was founded to combat the extravagances of the anti-vivisectionists whom I was given to understand were a lot of sentimental cranks who would check the acquisition of knowledge. It appeared as if those who commented on atrocities were the obnoxious folk and not those who perpetrated them. Who caused the sensationalism of Belsen, etc. those who powerfully guarded the secrecy, or the newsmen who eventually reported them?"

Dr. G. F. C. Searle, F.R.S., D.Sc., formerly lecturer in Experimental Physics in the University of Cambridge, made a speech on July 13th, 1954, in the Cambridge Senate House with the object of dissuading the University from giving a £10 donation to the Research Defence Society. He was successful in his dissuasion. Among other things he said the following:

"The anti-vivisection societies do a little in buying dogs to prevent their sale to vivisection laboratories, but that side of their work amounts to a very little. Their chief anti-vivisection work, and what vexes the Research Defence Society most, is their publication of extracts from the papers in scientific journals by the vivisectors themselves.

"The vivisectors are scared of their own words, recorded, as they are, in journals of their own choice, when they are made public by some dreadful person like myself.

"I will give an example. In the *Cambridge Daily News* of Aug. 18th, 1923, I gave a short account. . . . of a vivisector's account of his experiments on decerebrated cats. . . . I had not mentioned his name, but I stung him into action by quoting his own words. Just because I made public what he had written about his own experiments, he called me unscrupulous. He declared that the only fitting place to meet me was the Law courts."

(82) It is likely that in Russia there is a large amount of vivisection taking place. One of the famous early vivisectors was Pavlov, whose behaviour studies with dogs led to the behaviouristic methods for controlling human beings. More than 25 years ago reports from Russia indicated that a completely deserved dog's head could be kept alive for a few hours with an artificial blood pump, and more recently. (*Time* Jan. 17th, 1955), a young dog's head was grafted onto the neck of a larger dog and the two-headed monstrosity died after six days. These give the impression that a good deal of that kind of work has been going on in the meantime, and in a country where large scale human experiments can take place (see 28 end) it would seem more than likely that experiments would be much more unlimited and uncontrolled than in the U.S.A. However, no reliable information on this point is available.

hospitals. Like insanity, nervous disorders and intellectual weakness seem to have become more frequent. They are the most active factors of individual misery and of the destruction of families. Mental deterioration is more dangerous for civilization than the infectious diseases.”

Unfortunately, even Dr. Carrel is also a scientist, and, though far more clear-sighted than most, is nevertheless still “saturated with the prejudices” of his training and epoch. Even his brilliant mind, contaminated by the practice of vivisection, does not penetrate to one of the basic causes for the situation he portrays.

It is time the world realized that only such medicines and techniques as have been discovered as a result of the divine-urge to relieve suffering and without harm to any creature, whether in discovery, testing, standardizing, manufacture, or treatment—those alone will truly and permanently heal, those alone have advanced the art of healing as much as it has advanced.

It might be mentioned that the only bright spot in the insanity situation is due to the “tranquilizers” which, according to *Life* magazine, “are proving to be one of the most spectacular triumphs in the history of medicine”. They started with “resperine”, which *Life* reminds us, was “derived from an ancient remedy used in India.”. Was this remedy discovered or developed by cruel means? Does not our ancient medical science remind us that the worst of all poisons is *himsa*?

One danger of animal experimentation is that its pernicious influence is so powerful that it is beginning to invade and contaminate other systems of healing. One witness before our committee claimed that animal experimentation was being used in America with homeopathic remedies, and we were informed that ayurvedic medicines are being tested and standardized on animals. Such is the infectious nature of approved cruelty.

Besides its general pollution of the art of healing animal experimentation pollutes the whole civilization which tolerates it and those who are engaged in it. It is important to remember that every experiment I have mentioned may be done here tomorrow without anyone knowing of it except those who would not be inclined to object, and with no means of preventing them even if objections were raised. Nearly all the scientists who gave evidence before the committee were opposed to *any kind of law* relating to animal experimentation. Remarks like the following kept occurring in their evidence:

“There is no cruelty involved in these experiments as the experimenters are mostly highly educated.”

No law is necessary because “experimenters are highly educated and responsible persons.”

“A scientist has the right to develop what he likes.”

I hope I will not be understood as casting reflections upon our medical scientists when I say, with Dr. Alexis Carrel, that, “After all, scientists are only men”. (83) The old law from our Indian scriptures that harmfulness

(83) William James, M.D., LL.D., Prof. of Philosophy, Harvard University, wrote a letter to the *New York Evening Post* (May 22nd, 1909) about the medical men who were opposing legal restrictions on vivisection:

“ their unanimity is the best example I know of the power of club opinion to quell independence of mind. No well organized sect or corporation of men can ever be trusted to be truthful or moral when under fire from the outside. In this case the watch-word is to deny alleged fact stoutly, to concede no point of principle, and to stand firmly on the right of the individual experimenter. His being ‘scientific’ must, in the eye of the law, be a sufficient guarantee that he can do no wrong”.

in any form makes for the deterioration of the psychological and spiritual side of man applies to them as to all human beings. Leaving alone the gradual deterioration of finer feelings in those who make a profession of animal experimentation, and considering for the moment only the hardening of the heart which is, in effect, required of all medical students in the course of their training, we can begin to see how animal experimentation diminishes sympathy and pity in the hearts of those who stand most in need of them in their work. As Dr. Brailsford remarks in one of his articles (March 17th, 1955, see 20a.): "The desire for animal experiment is something that has been instilled into the student by his teacher. It indicates a *trained distortion* of the normal aspirations of man rather than their normal development." (My italics). Back in his day that great American surgeon, Dr. Bigelow (see 32) wrote: "Watch the students at a vivisection, it is the blood and suffering, not the science, that rivets their breathless attention".

I will not dwell on all the ugly possibilities which callousness brings into the profession of healing. Doctors who are more concerned with the patient's purse than the patient's health, doctors who do not mind their own incompetence as long as they can hide it, and doctors who are tempted to do a little secret experimenting on their patients now and then—these are some of the dreadful consequences of such callousness (84). John Ruskin made

(84) After a perusal of the various human experiments mentioned in (28), which give an idea of the dangers of what might be called "experimentalitis", it may be a good idea to look at a few instances in which a doctor is tempted to experiment upon his patient.

British Medical Journal, Oct. 23rd, 1926: Beckwith Whitehouse, Professor of Obstetrics, Univ. of Birmingham, gives the details of an investigation to "ascertain the possibility of the artificial production" of uterine hemorrhage, and says: "During the course of an exploratory laparotomy" (opening of the abdomen) "the opportunity occurred of excising the corpus luteum in a perfectly healthy young woman" (a mother). "39 hours after excision—uterine hemorrhage commenced—the patient was again taken to the theatre and the uterus curetted". The article shows clearly that the "excision" which led to a second visit to the theatre was an unnecessary experiment.

A correspondent in a letter to the *British Medical Association* (Jan. 2, 1954, p. 42) writes: "I would be the last to decry real research into anaesthetic methods capable of coping with, say, intracardiac surgery with a shut-off cardiac inflow, but these complicated techniques are being used on some patients undergoing routine surgery which can be dealt with by well-tried and simple methods....."

For experimentation with patients on a large scale, read this news despatch which appeared in *The Statesman*, August 9, 1952: "HIROSHIMA BOMB ANNIVERSARY". A list of 80,000 people killed outright by an atomic bomb here in 1945 was dedicated today and a memorial plaque was unveiled in a ceremony marking the seventh anniversary of the bombing.

"Meanwhile officials of the Hiroshima and Nagasaki Joint Reconstruction Commission complained bitterly that the U.S. Atomic Bomb Casualty Commission here was using victims of the blast as 'material for research', but not giving them treatment..... (My italics).

Naturally, as with all other diseases, "experimentalitis" has more severe forms. Mild infections can develop into paralytic attacks, i.e. when the numbing of sympathy advances to the point of its complete paralysis: *Evening Standard* (Sep. 6th, 1949): "Twenty-four people are believed to have lost their lives in the past two years in a French Hospital because a maniacal surgeon carried out surgical experiments on his patients....." The victims included six children.

There seems to be some foundation for the impression one sometimes acquires from things said by medical scientists that some of them believe in a certain kind and degree of callousness. In an extract from a report of the Harveian oration given by W. Melville Arnott, T.D., M.D., B.Sc., F.R.C.P., F.R.C.P.E., University of Birmingham (*The Lancet*, Oct. 15, 1955, p. 783) the following occurs:

"It is surprising how many apparently educated people, including many doctors, regard science as an affair of the laboratories, apparatus and formulae rather than as

the whole matter crystal clear when he wrote, "For one secret discovered by the torture of a thousand animals, a thousand means of health, peace

an attitude of mind which relates hypothesis and plan to controlled observation. It is because of this misconception that some mistakenly hold that the qualities of solicitude and compassion are incompatible with the scientific method."

It might be added that the "scientific" method with which solicitude and compassion are definitely incompatible is animal experimentation, and therefore it reduces these nobler qualities and produces as well the attitude that they do not belong to the science of healing.

The "maniacal" surgeon referred to above, with a little moderation and competence, could have carried on his experiments; he would probably have been lauded for his work later on if he had not publicly declared how it was accomplished.

There is a good deal of callousness and incompetence in surgery.

Of course it would be foolish to say that all callousness in the medical profession stems from animal experimentation alone. On the other hand, however, it can hardly be denied that *all* animal experimentation can tend toward the development of callousness; the more cruel experiments obviously demand a considerable degree of callousness as an *essential qualification* for their proper accomplishment.

Nor would it be correct to say that incompetence necessarily implies lack of interest in competence, but it is certain that callous indifference to the patient's needs and the patient's suffering breeds carelessness and irresponsibility and certainly does tend to destroy the urge to competence which sympathy would otherwise be nourishing.

One critic of the present methods of medical training writes in the *British Medical Journal* (April 30th, 1955, p. 1045): "It is singularly unfortunate that an assessment of the patient by the bedside appears nowadays to be deemed less essential and is becoming *more carefree and haphazard*". (My italics).

Callousness and incompetence, either together or separately, are deadly in a profession like the medical profession. See what they are liable to produce:

In an article in a reputed American Magazine, *The Woman's Home Companion* (July 1948), the following statement occurs: "Medical men have long known the shocking fact that many of the nine million surgical operations performed annually in America are unnecessary. Among doctors it is an open secret that in many an operating room the cloak of surgery covers *mayhem* and even manslaughter".

Richard Cabot, M.D., Professor of Social Ethics at Harvard Medical School said (*Baltimore Sun*, Jan. 16th, 1935): "There are an enormous number of surgical operations that ought never to have been done. A former student of mine told me that in one week in his hospital he saw six people taken into the operating room with all the rush and drama associated with emergency operations. They were appendicitis cases. The student examined the appendices afterwards. They were all normal".

Dr. William Howard Hay, himself a surgeon for many years said: "The world is well-filled with surgical wrecks. If we knew that surgery is responsible for more deaths today than any one disease, more than the losses of war, even, we would not be so inclined to fall for the blandishments of the urbane surgeon who tells us that we need an internal operation, and that without this we can carry on but a short and hazardous time. Again fear is the weapon used, and only because the natural fear of internal operations is overcome by the greater fear of dire calamity and early death predicted by the surgeon, who, we are taught to believe, makes no mistakes".

As far as incompetence is concerned, one of the most prominent physicians and surgeons of Boston, Dr. Alonzo J. Shadman, made this strong statement: "During the 43 years I have practised medicine, I have seen nearly every doctor in Boston in action. I have observed their limitations; their inefficiencies and their awful blunders, and I do not believe I exaggerate when I say that *orthodox medicine is killing more people yearly than war and disease combined*". (My italics).

Perhaps one of the ugliest aspects of callousness in the healing art is the commercialism it fosters. There is a certain ugliness about excessive commercialism in any profession, but when dollars, pounds, or rupees tip the scales against people's lives and health we approach the summit of commercial evils. One might ask why so many unnecessary operations are performed. Surely they are not all due to incompetence. One might ask why poor people are treated with relative indifference in our hospitals.

and happiness were lost, because the physician was continually infecting his students, not with the common rabies of the dog, but with the rabies of the man." (85).

Mr. Jagat Narain Chopra, Minister for Education and Health in Punjab, is reported to have said at Rohtak on June 7th, 1953: "I confess that poor and deserving people are denied a fair deal when they visit civil hospitals and dispensaries for treatment. They remain unattended while rich patients get every facility and proper attendance from medical authorities".

At least one book has been written, probably several have, about commercialism in the medical profession, and its disastrous results. But a recent example will show what it can do.

In *The New Leader*, a widely known and respected American magazine, an article appeared on Dec. 12th, 1955 entitled, "Polio Vaccine Snafu in New Jersey". With each state receiving polio vaccine sufficient for about a third of its requirements, some system of distribution had to be worked out in each state. New Jersey decided, on the basis of average usage of free clinics, to allocate 1/4 to free clinics and 3/4 to private sources. Once they got the news pharmacists "madly stocked up" on the vaccine. As the article mentions:

"Physicians jumped in before the average family knew there would be a free program. Windfalls were in the air. The doctors called up their patients and lined them up in assembly-line fashion at about \$5 a shot.

"Soon after the commercial vaccine was gobbled up, the state notified local health officers to go ahead with plans for free public programs. The municipalities spread the good word and it did not take long for parents to find out that shots would be available at no charge. Naturally, the doctors got a large number of cancellations for inoculations.

"Then the bomb dropped. The towns asked local doctors to give the shots at school and public clinics. The great majority refused.

"The State Medical Society, representing 21 counties, made the doctor's position quite clear. Its President, Dr. Vincent J. Butler, put it this way:

"'All that we're saying is that the Federal Government has no right to drop a load of vaccine in here and say, 'You have to inoculate these people regardless of their ability to pay'".

"Paul Krebs, President of the New Jersey State CIO, charged the State Medical Society and the State Health Department with a 'boycott against the children of our state'. He asked Governor Robert B. Meyner to reverse the allocation system to prevent \$12 million from going into the pockets of 'greedy doctors'

"In Bernardsville, a town with 1,200 eligible children under 15, the free program was on one day and off the next. Finally, the disgusted health officer sent the vaccine back to the state. He said he was ashamed but he couldn't persuade one doctor in the area to give the shots. Governor Robert G. Meyner called a public hearing to 'clarify' the situation.

Is it any wonder that Oklahoma's Governor Johnston Murray could speak as he did to the local Medical Society. The doctors, according to *Time* (Jan. 28, 1952), expected the usual soothing syrup about the responsibilities of their profession. They found themselves under bitter attack.

"I lay down this flat proposition", said the governor. 'During the last 35 years or thereabouts, the medical profession has lost an immeasurable amount of public esteem, reverence and respect that it formerly enjoyed. (Please note, I add, this is in a country which has unrestricted vivisection, and during this period it has been rapidly increasing.) The main trouble, as he saw it: the 'commercialization of the profession'. 'May be', said governor, the old time doctor didn't die with an amassed fortune of land and gold and loot, but he left behind him a life that had been a blessing to mankind, an honour to his profession.

"The governor also, had a few harsh words about doctor's high fees: 'I wonder how many Edisons, Einsteins, Lincolns and Pasteurs lie buried in unmarked graves because they were too poor to call a doctor.'

Perhaps one of the worst results of this commercialism is the prevention of simple and inexpensive cures from reaching public notice. There are not a few examples of this, and how much overall damage has been done in lives unnecessarily lost and health unnecessarily destroyed it would be impossible to estimate. One example.

Regarding those who pursue animal experimentation as a profession, George Bernard Shaw had this to say, among many other remarks:

"There is in man a specific lust for cruelty which infects even his passion of pity and makes it savage. A craze for cruelty can be developed just as a craze for drink can. Those who accuse vivisection of indulging the well-known passion of cruelty under the cloak of research are therefore putting forward a strictly scientific psychological hypothesis, which is also simple, human, obvious, and probable" Elsewhere he wrote, "When a man deliberately turns from all other paths and goes down that one (the path of cruelty) it is scientific to infer that what attracts him is not knowledge, since there are other paths to that, but cruelty. With so strong and scientific a case against him, it is childish for him to stand on his honour and reputation and high character and the credit of a noble profession and so forth."

which shows what tragedies can take place along this line (if the prophylactic method proves to be as effective as tests indicate), is the case of a simple, cheap method of polio immunization which was tested and presented to the medical world in 1941.

An American magazine, in calling attention to Dr. Benjamin P. Sadler's "Diet Prevents Polio" (Lee Foundation for Nutritional Research, 1951), remarks that:

"It came to us as something of a surprise—even a shock—to learn that this information has been publicly available since January 1941, in the *American Journal of Pathology*"

The method is extremely simple, too simple, in fact, to appeal to the medical profession. Dr. Sadler discovered that immunity to polio infection can be conferred by simply eliminating sugar from the diet and taking little starch. Unfortunately, this relation between low blood sugar and susceptibility to polio infection was demonstrated by Dr. Sadler on animals. There is no reason, therefore, for the medical profession to be prejudiced on grounds that the relationship has not been proved by their own cruel methods. This would not mean, of course, that such would be the case with human beings. But Dr. Sadler, a nutrition expert living in Asheville, N.C., U.S.A., was able to get the cooperation of the newspapers to spread his message at a time when Asheville was headed for a major polio epidemic. Churches, theatres, swimming pools and parks were closed and public gatherings discouraged. Dr. Sadler announced in the papers:

"I am willing to state without reserve that such a diet (no sugar, little starch) . . . strictly observed, can build up in 24 hours' time a resistance in the human body sufficiently strong to combat the disease. Of course, the diet must be followed throughout the epidemic." (*Asheville Times*, Aug. 4th, 1948).

The epidemic which was estimated to be likely to produce about 150 cases for the entire season, produced 76 cases instead. When we note that 55 of the cases had occurred prior to this announcement, and only a part of the newspaper readers would have undertaken the diet, this adds up to good results for a first test.

For testing this simple method Dr. Sadler was not able to get the cooperation of any public health agency, although he tried in the 1944 epidemic. Very dubious products of the vivisection laboratory like Salk vaccine which are liable to kill numbers of people and have unknown risks (see 77), are tested out on Americans to the tune of 50 million at a time, but some simple protection like this, which could not harm anyone, could not be mentioned. In 1948 the above test was made. (Not with the help of public health authorities, be it noted). Have the medical world and health authorities taken up large scale testing since? Is the name of Sadler sounding around the world as Salk's name was even before his vaccine had been properly tested?

Sadler may be wrong, but he has an excellent case for further investigation. Why has it been accorded the "silent treatment" for 15 years? It gives one food for thought. What have the drug companies to gain from a vivisection product like Salk vaccine? \$30 million as a starter from the U.S. Government plus £7 million per year and more. With Sadler's method they lose all those profits. What have the A.M.A. and its doctors to gain? \$5 a shot. And keep in mind that three shots are said to be needed at first, and no one knows how many booster shots may be needed,

Mr. Shaw stated the case rather too strongly, for there is no doubt that few researchers begin animal experimentation with the object of enjoying the cruelties involved. Some experimenters are surely motivated by a sincere anxiety for the welfare of mankind and regard animal experimentation as an unpleasant necessity which they undertake with what they consider due regard for the animal to whatever extent the object of the experiment permits of such regard. Some even amongst those who do the most horrible experiments are surely convinced, like the inquisitors, that

What do the experimentalists gain? They've been working on it for thirty years with good salaries, and awards have been good both in money and prestige. Salk is almost a household word over a good proportion of the globe.

Sadler has nothing to offer these big commercial and professional interests. He only offers the people protection from polio at no cost, except a little self-control.

Where is the honour and glory of a noble profession in situations like this? It has succumbed to callousness of just the type that animal experimentation helps to develop.

(85) John Ruskin resigned his chair in 1885, as Slade Professor of Fine Arts, Oxford University, as a protest against the inclusion of vivisection among its methods of teaching.

In connection with what he says about the "infecting" of students, a Cambridge man said something on the same point recently (July 13th, 1954) in the Cambridge Senate House. Dr. Searle (see 81) said: "The University is responsible not only for what vivisectioners do to animals in University premises but also for the effect of vivisection on the outlook and personalities of medical students and the resulting medical men. A good many people have definite ideas about these matters and I need not stress their importance....."

An example of the kind of irresponsible cruelty that is encouraged in students can be seen in a well-known text-book, *Experimental Surgery*, which is intended for the instruction and guidance of both graduate and undergraduate students of medicine and surgery. It is an authoritative book, now in its third edition, published in England and in America. Among the surgical procedures the student is expected to undertake are the following: Grafting a kidney from one dog into the tissues of the neck of a second dog. Variations of this and similar procedures are suggested as worth a trial. Another suggestion: "It would be an interesting exercise to remove both kidneys of a dog and three days later when it is at the point of death, to transplant a kidney from another dog into the neck under procaine anaesthesia" (a local anaesthetic). Then there is a description of the method for transplanting the heart of one dog into the tissues of another. Such a heart, it seems, will pulsate regularly from one to eight days, and "the preparation is not only a spectacle but one of the achievements of experimental surgery."! (What about the achievement in "infecting the student" with "the rabies of the man?") (Publishers: The Williams & Wilkins Co., Baltimore, U.S.A.).

This kind of training is given, by the way, in the face of statements by some of the world's greatest surgeons that nothing can be learned from vivisection along this line. For example, Dr. A. Desjardings, President of the Society of Surgeons in Paris, said, "I have never known a single good operator who has learned anything whatever from experiments on animals".

Dr. Brailsford (20 a.) writes to the press quite plainly about this matter. "We have to face the very serious fact", he writes, "that many of our young doctors are being designedly trained to think and act 'Scientifically' and to treat patients as experimental animals. Even as recently as this year (1955) a leading surgeon has stated, 'Man is the right animal for experimental recourse. It is to be hoped that the human experiments will supplant those of the cat and the monkey so much beloved of physiologists because they have been their laboratory familiars'. But he admits that even with human experiments the response differs with the individual. It would not be difficult to give many instances of experimental procedures both medical and surgical that before their value has been established have been applied to hundreds of patients, yet which have ultimately been dropped because of the many disasters such techniques have produced".

Dr. Hoggan, once a vivisectioner himself, has this instance of "student infection" to tell: "One of the most revolting practices was to turn the tortured and almost dead animals over to students that they might continue the harrowing experiment as long

their torturing is all for the good. But to say that there is no danger that the heartlessness required in the work is liable to develop a streak of unconscious sadism in some cases is certainly going too far. As Dr. William James, M.D., LL. D. (86), put it, "The rights of the helpless, even though they be brutes, must be protected by those who have superior power. . . . The medical and scientific men who time and time again have raised their voices in opposition to all legal projects of regulation, know, as well as anyone else does, the unspeakable possibilities of callousness, wantonness and meanness of human nature. . . ."

One can sense something of the possibilities in the passage which Air Chief Marshal Lord Dowding quoted before the House of Lords in 1952: "Dr. Cyon", he said, "one-time Professor of Physiology at St. Petersburg, in his book, puts it thus:

"The true vivisector must approach a difficult vivisection with joyful excitement. He who shrinks from cutting into a living animal, he who approaches vivisection as a disagreeable necessity may be able to repeat one or two vivisections, but he will never be an artist in vivisection. The

as a spark of life remained". He went on to say: "After telling of all this, I need not add that I am ready to see, not only science, but the whole human race go to destruction, before I would resort to such means to save it".

Long ago Richard Wagner wrote (letter to Ernst von Weber, published in Dresden, 1883): "The thought of their sufferings penetrates, with horror and dismay into my soul, and in the sympathy evoked I recognize the strongest impulse of my moral being, and also the probable source of all my art. The total abolition of the horror we fight against must be our real aim. . . . Unfortunately our review of human things has shown us Pity struck from off the laws of our Society, since even our medical institutes, pretending to care for man, have become establishments for teaching ruthlessness, which naturally will be extended for sake of 'science'—from animals to any human beings found defenceless against its experiments".

It has been so extended, not only in Nazi Germany; but all over the world to a lesser but growing extent (see 28). *Ruthlessness* is the right word for this kind of training, and after seeing its effects in so many ways (see 84 and others), let us think carefully whether this is what we want in India.

(86) (See 83) . . . Knowing these possibilities of human nature, it is incumbent upon laymen not to turn over their sense of judgment to any smaller professional group, whether doctors or priests or officials by an excessive, unquestioning faith in men of science, or whatever group it is. The *people* of this country must decide whether to tolerate an evil of the magnitude of animal experimentation, not the scientists.

What one well-known physician and surgeon had to say on this point is well worth noting:

"The strongest position of the modern physiological laboratory is its secrecy. It occupies in the popular mind almost precisely the place which was held for centuries by the Inquisition in Spain. There were men who doubtless objected then to the secrecy of the dungeon. 'Trust us absolutely,' cried the inquisitor; 'ours is the responsibility of preventing errors that lead to eternal death. Can you not leave it to us to decide what shall be done in the torture-chamber, being assured that no more pain will be inflicted than is absolutely necessary for the end in view?' 'Trust us absolutely' demands the vivisector of today. 'Can you dare question the purity of our motives, the unselfishness of our aims, the mild and humane methods of our experimentations? Cannot the public leave it solely to us to determine what pain may be inflicted upon animals, being certain that no more suffering will be caused than we deem to be necessary for success?'

"The parallelism is complete. It is a call for implicit confidence. And that confidence has been given by a too credulous public. Three hundred years ago . . . the multitude about the burning place was not intentionally cruel. They had simply given the control of their judgment to the inquisitor. Is it so very different today in the matter of vivisection?

sensation of the physiologist, when, from a gruesome wound, full of blood and mangled tissue, he draws forth some delicate nerve thread. . . . has much in common with that of a sculptor."

Is it not clear that, from the standpoint of those who oppose animal experimentation, its abolition would improve the moral tone of the whole nation; advance the art of healing in new and legitimate ways; save the health of the people from being subtly undermined with cruelty products which are slow, long-term poisons; improve in medical practitioners the sympathetic response to their patient's suffering, the capacity for which is now partly destroyed in training; and at the same time relieve the experimenters themselves of a debasing influence in their own lives which, however subtle, has an insidious psychological effect and one which, in lower types, can turn a man into a fiend? If you think not, read what Dr. George W. Crile has written of his own experiments on 148 dogs in his book, "Surgical Shock". "I tarred some of them, set fire to them, I cut others open and poured boiling water into the cavities, I held their paws over Bunsen flames, deliberately crushed the most sensitive organs of the male dogs, broke every bone in a dog's paw with a mallet. In others I poked their eyes out with a tool, and scraped the empty sockets." Could you, or any *normal* human being you know, actually do these things no matter how great your interest in knowledge? Is it any wonder that Gandhiji called vivisection, "*the blackest of all the black crimes that man is at present committing against God and his fair creation.*"? "This crime will, in my opinion," said Mr. Peter Freeman, M.P. before the House of Commons (*Hansard* 31 Oct., 1950), "go down in history as one of the blackest ever committed by human beings."

I say with Robert Browning, "I despise and abhor the pleas on behalf of that infamous practice, vivisection. I would rather submit to the worst death, so far as pain goes, than to have a single dog or cat tortured on the pretence of sparing me a twinge or two." *Humanity* obviously takes precedence over the mere acquisition of knowledge however good may be its intended uses. If it were not so we would be sacrificing humanity in the pursuit of longer and healthier physical life, the supreme purpose of which is the development of the very humanity we sacrifice. Or, as Vinoba Bhave put it, "What can be more unscientific and irreligious than torturing animals in the name of religion or science. We lose the very spirit of humanity by believing that mankind can be benefited by torturing living beings. In other words it amounts to losing the very capital in extorting interest with selfish motives." That is why, as Cicero said, "No cruelty is useful;" no cruelty ever will or ever can be useful except in an *apparent* and temporary sense.

The only way to prevent cruelty to animals is to prohibit animal experimentation *in toto*; anything less than this makes a misnomer of our subject. It is not the cruelty of the scientist with which we are fundamentally concerned, whether his actions are such that we can apply the adjective "cruel" to them. What concerns us in the word "cruelty" is its relation to the victim, that is, is there cruelty to *animals* in animal experimentation? There cannot be a shadow of doubt in the mind of anyone who impartially studies

"Of the ultimate triumph of the reform of vivisection there can be no more question than of the result of the agitation against human slavery, against the torment of criminals, against the burning of the heretic or the witch. . . .". (From an address by Dr. Albert Leffingwell, M.D., to the International A.V.A.P. Congress, Washington, D.C., 1913).

the question that animal experimentation is cruel, sometimes horribly, revoltingly cruel. Once informed of these cruelties, we must ask ourselves, *is this what we want in India?* For that is what we are headed toward now. Some of these cruelties are already going on here, others will come with the much lauded efforts to expand and improve facilities for medical research. If we *must* imitate the West, need we imitate these mal-conceptions and mal-practices?

Restriction does not prevent these cruelties, as the experience of other countries has shown, and no amount of restriction would eliminate cruelty from animal experimentation (87). The whole approach is fundamentally and basically wrong, ethically and scientifically; it is the approach of fear, the approach of the whimpering coward who will not stand up to life and pursue his path with honour and justice. As the distinguished actress, Minnie Madden Fiske wrote long ago, "All cruelty to helpless things is cowardice, but to my mind the exquisite cowardice of the vivisectioner is the most perfect thing in immortality that the mind of man can conceive." Its presence will always form a blot upon the civilization which tolerates it. As Alfred Russel Wallace, one of the greatest scientists of modern times said in his day, "I have for some years come to the conclusion that nothing but Total Abolition will meet the case of vivisection. . . . So long as vivisection is legal, our legislation against cruelty to animals is the most barefaced hypocrisy."

I do not mean to imply that I do not approve of the recommendations as far as they go, for it is obvious that some attempt at control is better than none. Nor would I for a moment wish to be understood as derogating the many real accomplishments of the medical profession or denying that we owe the profession a debt of gratitude for its many services to humanity. It is nevertheless true that what Dr. Gesell called "the halo supplied by the faith of the people" in the medical profession is sufficient to keep people in contended ignorance as regards this vital subject.

I hope I will be pardoned for the emphasis which I have placed on this matter, but, as I hope will be seen from my treatment of the subject, it is a matter of *vital importance to the whole nation in an ultimate sense*, not merely for the moment, and its importance is commonly overlooked. I am a person whose ideas on such a matter would be considered meaningless in themselves, and have been so considered, quite rightly; for this reason some references and substantiations have been essential to show that this point of view is not based upon mere imaginative idealism.

Having made my position clear and the grounds which exist for such a position, grounds which hardly appear in the Report and are little known to the world at large, I now feel that my conscience permits me to sign the report and urge the implementation of *at least* these recommendations. With the inclusion of this Note, I cannot be regarded either by myself or by others as having actually or by implication supported or even condoned practices to which I am unalterably opposed, which I consider cruel, and a violation of justice, morality and real common sense.

(87) Animal experimentation is an exploitation of the animal kingdom, and a type of exploitation which tends to develop a mentality which will inevitably result in cruelty, not necessarily cruelty for cruelty's sake, but cruelty none the less, whatever its goal.

May I here remind those who may, like myself, have yet a trace of the Eastern outlook on life, that nothing could do more violence to our own way of thinking and of living than to imagine that we can benefit in health or happiness by inflicting suffering on other creatures.

William Pitt said that "necessity is the argument of tyrants," and that is just what we are to the animal kingdom—*tyrants*. We exploit them mercilessly on the grounds that to have the might to do so, is to have the right. How can we ever hope to eliminate the exploitation of the weak among human beings when we all unite in such gigantic and brutal usage of the animal kingdom? Peace on earth and goodwill among men will only come with and as a result of the elimination of the hardness of heart which the perpetration and toleration of these cruelties foster.

We should not allow ourselves to be deceived by appearances and carnal promises. A nation of noble men and women can never place physical considerations above moral values, but does that mean a nation can lose by rectitude? Read the words of a truly wise physician, Dr. Robert Hutchison, M.D., F.R.C.P. (88); "What we need for the attainment of health as individuals is not more knowledge but a change of heart. We hear catch phrases about a 'Nation's Health is a Nation's Wealth' 'Health is the Country's Greatest Asset', and so on. Believe me, that is cant. A country's greatest asset is character. Let us, therefore, cultivate character and let Health look after itself, being assured that to a nation made up of men and women of character, all things, health included, will be added. For it is true, I believe, in the bodily as well as in the spiritual sphere, that he who will save his life shall lose it."

We will be missing one of the great opportunities of history in the beginning years of our Republic if we do not prohibit these cruelties while they are not yet too entrenched and thus set the moral tone of our entire future development. We would be the first nation in history to stand for *total* justice and rectitude in action, and our accomplishment would be a shining example to the world for centuries to come.

(Sd.) RUKMINI DEVI ARUNDALE

(88) Physician to the London Hospital and the children's Hospital, Great Ormond Street. Demonstrator in Physiology, London Hospital Medical College, etc. Taken from an address in New York reported in *The New York Times*, Sep. 14th, 1930.



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A P P E N D I C E S



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N.B.—The States occurring in the
appendices are those as existing
prior to the Reorganization of
States on November 1, 1956



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APPENDIX I
THE PREVENTION OF CRUELTY TO ANIMALS BILL, 1957

A
BILL

to prevent the infliction of unnecessary pain
and suffering on animals and for that pur-
pose to amend and consolidate the law relat-
ing to the prevention of cruelty to animals.

BE it enacted by Parliament in the Eighth Year of the Republic of India as follows:—

CHAPTER I

PRELIMINARY

1. *Short title, extent and commencement.*—(1) This Act may be called the Prevention of Cruelty to Animals Act, 1957.

(2) It extends to the whole of India except the State of Jammu and Kashmir.

(3) It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint, and different dates may be appointed for different States and for the different provisions contained in this Act.

2. *Definition.*—In this Act, unless the context otherwise requires,—

- (a) “animal” means every species of animal other than a human being and every species of bird;
- (b) “board” means the Animal Welfare Board established under section 4;
- (c) “captive animal” means any animal (not being a domestic animal) which is in captivity or confinement, whether permanent or temporary, or which is subjected to any appliance or contrivance for the purpose of hindering or preventing its escape from captivity or confinement or which is pinioned or which is or appears to be maimed;
- (d) “domestic animal” means any animal which is tamed or which has been or is being sufficiently tamed to serve some purpose for the use of man of which, although it neither has been nor is being nor is intended to be so tamed, is or has become in fact wholly or partly tamed;
- (e) “local authority” means a municipal committee, district board or other authority for the time being invested by law with the control and administration of any matters within a specified local area;
- (f) “owner”, used with reference to an animal, includes not only the owner but also any other person for the time being, whether with or without the consent, of the owner, in possession or custody of the animal;
- (g) “phooka” or “doom dev” includes any process of introducing air or any substance into the female organ of a milch animal with the object of drawing off from the animal any secretion of milk;
- (h) “prescribed” means prescribed by rules made under this Act;

- (i) "street" includes any way, road, lane, square, court, alley, passage or open space, whether a thoroughfare or not, to which the public have access.

3. *Duties of persons having charge of animals.*—It shall be the duty of every person having the care or charge of any animal to take all reasonable measures to ensure the well-being of such animal and to prevent the infliction upon such animal of unnecessary pain or suffering.

CHAPTER II

ANIMAL WELFARE BOARD

4. *Establishment of the Animal Welfare Board.*—(1) For the purpose of protecting animals from being subjected to unnecessary pain or suffering and for the promotion of animal welfare generally, there shall be established by the Central Government, as soon as may be after the commencement of this Act, a Board to be called the Animal Welfare Board.

(2) The Board shall be a body corporate having perpetual succession and a common seal with power, subject to the provisions of this Act, to acquire, hold and dispose of property and may by its name and be sued.

5. *Constitution of the Board.*—(1) The Board shall consist of the following persons:—

- (a) the Inspector-General of Forests, Government of India, *ex-officio*;
- (b) the Animal Husbandry Commissioner to the Government of India, *ex-officio*;
- (c) one person to represent veterinary practitioners, nominated by the Central Government;
- (d) one person to represent medical practitioners in India nominated by the Central Government;
- (e) four persons nominated by the Central Government to represent respectively the Ministries of Health, Education, Information and Broadcasting and Finance, of the Government of India;
- (f) five non-officials nominated by the Central Government to represent persons actively interested in animal welfare;
- (g) four Members of Parliament, two of whom shall be elected by the Lok Sabha (House of the People) and two by the Rajya Sabha (Council of States).

(2) Any of the officers referred to in clause (a) or clause (b) of sub-section (1) may depute any other person to attend any meetings of the Board.

(3) One of the non-official Members of the Board shall be nominated by the Central Government to be its Chairman.

6. *Term of office of and conditions of service of Members of the Board.*—(1) Save as otherwise provided in this section, the term of office of a Member of the Board shall be five years from the date of his nomination or election:

Provided that the term of office of a Member elected under clause (g) of sub-section (1) of section 5 shall come to an end as soon as he ceases to be a Member of the House from which he was elected.

(2) The term of office of an *ex-officio* Member shall continue so long as he holds the office in virtue of which he is such a Member.

(3) The term of office of a Member nominated or elected to fill a casual vacancy shall continue for the remainder of the term of the Member in whose place he is nominated or elected.

(4) The Members of the Board shall receive such allowances, if any, as the Board may, subject to the previous approval of the Central Government, provide by regulations made by it in this behalf.

(5) No act done or proceeding taken by the Board shall be questioned on the ground merely of the existence of any vacancy or defect in the constitution of the Board.

7. *Secretary and other employees of the Board.*—(1) The Central Government shall appoint one of its officers to be the Secretary of the Board.

(2) Subject to such rules as may be made by the Central Government in this behalf, the Board may appoint such number of other officers and employees as may be necessary for the exercise of its powers and the discharge of its functions and may determine the terms and conditions of service of such officers and other employees by regulations made by it with the previous approval of the Central Government.

8. *Funds of the Board.*—The funds of the Board shall consist of grants made to it from time to time by the Government and of donations, bequests, gifts and the like made to it by other persons.

9. *Functions of the Board.*—The functions of the Board shall be:—

- (a) to keep the law in force in India for the prevention of cruelty to animals under constant study and advise the Central Government on the amendments to be undertaken in any such law from time to time;
- (b) to advise the Government on the making of rules under this Act with a view to preventing unnecessary pain or suffering to animals generally, and more particularly when they are being transported from one place to another or when they are used as performing animals or when they are kept in captivity or confinement;
- (c) to advise the Government or any local authority or other person on improvements in the design of vehicles so as to lessen the burden on draught animals;
- (d) to take all such steps as the Board may think fit for ameliorating the condition of beasts of burden by encouraging or providing for the construction of sheds, water-troughs and the like, by providing for veterinary assistance to animals, by supplying animals on hire or otherwise to persons in need of them when their animals are incapacitated for work by reason of illness or for any other reason;
- (e) to advise the Government or any local authority or other person in the design of slaughter-houses or in the maintenance of slaughter-houses or in connection with slaughter of animals so that unnecessary pain or suffering, whether physical or mental, is eliminated in the pre-slaughter stages as far as possible, and animals are killed, wherever necessary, in as humane a manner as possible;
- (f) to take all such measures as the Board may think fit, whether by means of propaganda or otherwise, to eliminate the sacrifice of animals in places of religious worship or other public places or the sacrifice of animals involving unnecessary pain or suffering;
- (g) to encourage, by the grant of financial assistance or otherwise, the formation of *pinjrapoles*, sanctuaries and the like where animals and birds may find a shelter when they have become old and useless or when they are required to be protected from human depredation;

- (h) to co-operate with, and coordinate the work of, associations or bodies established for the purpose of preventing unnecessary pain or suffering to animals or for the protection of animals and birds;
- (i) to encourage the formation of Animal Welfare Organisations in local areas which shall work under the general supervision and guidance of the Board;
- (j) to impart humane education in relation to animals and to encourage the formation of public opinion against the infliction of unnecessary pain or suffering to animals and for the promotion of animal welfare by means of lectures, books, posters, cinematographic exhibitions, and the like;
- (k) to advise the Government on any matter which may be referred to it for advice in connection with animal welfare or the prevention of the infliction of unnecessary pain or suffering on animals.

10. *Power of Board to make regulations.*—The Board may, subject to the previous approval of the Central Government, make such regulations as it may think fit for the administration of its affairs and for carrying out its functions.

CHAPTER III

CRUELTY TO ANIMALS GENERALLY

11. *Treating animal cruelly.*—(1) If any person :—

- (a) beats, kicks, ill-treats, over-rides, over-drives, over-loads, tortures, infuriates or terrifies any animal so as to subject it to unnecessary pain or suffering or causes or, being the owner permits, any animal to be so used; or
- (b) employs in any work or labour any animal which, by reason of any disease, infirmity, wound, sore or other cause, is unfit to be so employed or, being the owner permits, any such unfit animal to be so employed; or
- (c) uses upon any animal any spur or other similar contrivance or appliance with sharp points; or
- (d) wilfully and unreasonably administers any poisonous or injurious drug or poisonous or injurious substance to any domestic or captive animal or wilfully and unreasonably causes or attempts to cause any such drug or substance to be taken by any domestic or captive animal; or
- (e) conveys or carries or causes or, being the owner permits, or suffers to be conveyed or carried, whether in or upon any vehicle or not, any animal in such a manner or position as to subject it to unnecessary pain or suffering; or
- (f) keeps or confines any animal in any cage or other receptacle which does not measure sufficiently in height, length and breadth to permit the animal a reasonable opportunity for exercise; or
- (g) keeps for an unreasonable time any animal chained or tethered upon an unreasonably short or unreasonably heavy chain or cord; or
- (h) neglects, as the owner, to exercise or cause to be exercised daily and reasonably any dog habitually chained up or kept in close confinement; or

- (i) being the owner of any domestic animal other than one running at large, or, being the owner of any captive animal, fails to provide such domestic or captive animal with proper and sufficient food, drink or shelter; or
- (j) without reasonable cause abandons any animal in circumstances which render it likely that it will suffer pain by reason of starvation or thirst; or
- (k) wilfully permits any animal, of which he is the owner, to go at large in any street while the animal is affected with contagious or infectious disease or, without reasonable excuse permits any diseased or disabled animal, of which he is the owner, to die in any street; or
- (l) offers for sale or, without reasonable cause, has in his possession any live animal which is suffering pain by reason of mutilation, starvation, thirst, overcrowding or other ill-treatment; or
- (m) needlessly kills or causes to be killed or needlessly mutilates any animal or kills any animal in an unnecessarily cruel manner; or
- (n) keeps, sells or attempts to sell (otherwise than for the express purpose of being slaughtered) or exposes for sale any domestic or captive animal which is in such a condition that it is cruel to keep it alive; or
- (o) incites any animal to fight or baits any animal or aids or abets any such inciting or baiting; or
- (p) keeps, uses or acts in the management of, any place for animal fighting or for the purpose of baiting any animal or permits or offers any place to be so used or receives money for the admission of any other person to any place kept or used for any such purpose; or
- (q) promotes or takes part in any shooting match or competition wherein animals are released from captivity for the purpose of such shooting;

he shall be punishable, in the case of a first offence, with fine which may extend to fifty rupees or with imprisonment for a term which may extend to one month or with both, and, in the case of a second or subsequent offence committed within three years of the previous offence, with fine which may extend to one hundred rupees or with imprisonment for a term which may extend to three months or with both.

(2) For the purposes of sub-section (1), an owner shall be deemed to have committed an offence if he has failed to exercise reasonable care and supervision with a view to the prevention of such offence :

Provided that where an owner is convicted of permitting cruelty by reason only of having failed to exercise such supervision, he shall not be liable to imprisonment without the option of a fine.

(3) Nothing in this section shall apply to—

- (a) the dehorning of cattle, or the castration or branding of any animal, where the operation is attended with as little suffering as is practicable to the animal operated upon; or
- (b) the destruction of stray dogs in lethal chambers or by other methods with a minimum of suffering; or
- (c) the extermination or destruction of any animal under the authority of any law for the time being in force; or
- (d) any matter dealt with in Chapter IV; or
- (e) the commission or omission of any act in the course of the destruction or the preparation for destruction of any animal as food for mankind unless such destruction or preparation was accompanied by the infliction of unnecessary pain or suffering.

12. *Penalty for practising phooka or doom dev.*—If any person performs upon any cow or other milch animal the operation called *phooka* or *doom dev* or permits such operation being performed upon any such animal in his possession or under his control, he shall be punishable with fine which may extend to one thousand rupees or with imprisonment for a term which may extend to two years or with both, and the animal on which the operation was performed shall be forfeited to the Government.

13. *Destruction of suffering animals.*—(1) Where the owner of an animal is convicted of an offence under section 12, it shall be lawful for the court, if the court is satisfied that it would be cruel to keep the animal alive, to direct that the animal be destroyed and to assign the animal to any suitable person for that purpose, and the person to whom such animal is so assigned shall, as soon as possible, destroy such animal or cause or procure such animal to be destroyed in his presence without unnecessary suffering, and any reasonable expense incurred in destroying the animal may be ordered by the court to be recovered from the owner as if it were a fine :

Provided that unless the owner assents thereto, no order shall be made under this section except upon the evidence of a veterinary officer in charge of the area.

(2) When any Magistrate, Commissioner of Police or District Superintendent of Police has reason to believe that an offence under section 11 has been committed in respect of any animal, he may direct the immediate destruction of the animal if in his opinion it would be cruel to keep the animal alive.

(3) Any police officer above the rank of a constable who finds any animal so diseased or so severely injured or in such a physical condition that in his opinion it cannot be removed without cruelty, may, if the owner is absent or refuses his consent to the destruction of the animal, forthwith summon the veterinary officer in charge of the area in which the animal is found, and if the veterinary officer certifies that the animal is mortally injured or so severely injured or in such a physical condition that it would be cruel to keep it alive, the police officer may, after obtaining orders from a Magistrate, destroy the animal injured or cause it to be destroyed.

(4) No appeal shall lie from any order of a Magistrate for the destruction of an animal.

CHAPTER IV

EXPERIMENTATION ON ANIMALS

14. *Experiments on animals and Committee for the control and supervision thereof.*—(1) Nothing contained in this Act shall render unlawful the performance of experiments (including experiments involving operations) on animals for the purpose of advancement by new discovery of physiological knowledge or of knowledge which will be useful for saving or for prolonging life or alleviating suffering or for combating any disease, whether of human beings, animals or plants; but for the purpose of controlling and supervising such experiments in order to ensure that animals do not suffer unnecessary pain or suffering before, during or after such experiments, there shall be constituted by the Central Government, as soon as may be after the commencement of this Act, a Committee consisting of the following persons, namely :—

- (a) two persons nominated by the Central Government from among the members of the Indian Council of Medical Research;

- (b) two persons nominated by the Central Government from among the members of the Indian Council of Agricultural Research;
 - (c) two persons nominated by the Central Government from among the members of the Council of Scientific and Industrial Research;
 - (d) two members nominated by the Central Government to represent Universities in India granting medical and veterinary degrees;
 - (e) two Members of Parliament, one to be elected by the Lok Sabha (House of the People) and one by the Rajya Sabha (Council of States); and
 - (f) five non-officials nominated by the Central Government to represent persons actively engaged in the promotion of animal welfare.
- (2) One of the non-official members of the Committee shall be nominated by the Central Government to be its Chairman.
- (3) The Committee shall have power to regulate its own procedure in relation to the performance of its duties.

15. *The funds of the Committee* shall consist of grants made to it from time to time by the Government and of contributions, donations, subscriptions, gifts and the like made to it by any person or institution.

16. *Staff of the Committee.*—Subject to the control of the Central Government, the Committee may appoint such number of officers and other employees as may be necessary to enable it to exercise its powers and perform its duties, and may determine the remuneration and the terms and conditions of service of such officers and other employees.

17. *Duties of the Committee and power of the Committee of make rules relating to experiments on animals.*—(1) It shall be the duty of the Committee to take all such measures as may be necessary to ensure that animals are not subjected to unnecessary pain or suffering before, during or after the performance of experiments on them, and for that purpose it may, by notification in the Gazette of India, make such rules as it may think fit in relation to the conduct of such experiments.

(2) In particular, and without prejudice to the generality of the foregoing power, rules made by the Committee shall be designed to secure the following objects, namely,—

- (a) that in cases where experiments are performed in any institution, the responsibility therefor is placed on the person in charge of the institution, and that in cases where experiments are performed outside an institution by individuals, the individuals are qualified in that behalf and the experiments are performed on their full responsibility;
- (b) that experiments are performed with due care and humanity, and that as far as possible experiments involving operations are performed under the influence of some anæsthetic of sufficient power to prevent the animal feeling pain;
- (c) that animals which, in the course of experiments under the influence of anæsthetics, are so injured that their recovery would involve serious suffering, are ordinarily destroyed while still insensible;
- (d) that experiments on animals are avoided wherever it is possible to do so; as for example, in medical schools, hospitals, colleges and the like, if other teaching devices such as books, models, films and the like may equally suffice;
- (e) that experiments on larger animals are avoided when it is possible to achieve the same results by experiments upon small laboratory animals like guinea-pigs, rabbits and rats;

- (f) that experiments are not performed merely for the purpose of attaining manual skill.
- (g) that animals intended for the performance of experiments are properly looked after both before and after experiments;
- (h) that suitable records are maintained with respect to experiments performed on animals.

(3) In making any rules under this section, the Committee shall be guided by such directions as the Central Government (consistently with the objects for which the Committee is set up) may give to it and the Central Government is hereby authorised to give such directions.

(4) All rules made by the Committee shall be binding on all individuals performing experiments outside institutions and on persons in charge of institutions in which experiments are performed.

18. *Power of entry and inspection.*—For the purpose of ensuring that the rules made by it are being complied with, the Committee may authorise any of its officers or any other person in writing to inspect any institution or place where experiments are being carried on and report to it as a result of such inspection, and any officer or person so authorised may—

- (a) enter at all reasonable times and inspect any institution or place in which experiments on animals are being carried on; and
- (b) require any person in charge of any institution to produce any record kept by it with respect to experiments on animals performed in that institution.

19. *Power to prohibit experiments on animals.*—If the Committee is satisfied, on the report of any officer or other person made to it as a result of any inspection under section 18 or otherwise, that the rules made by it under section 17 are not being complied with by any person or institution carrying on experiments on animals, the Committee may, by order, prohibit the person or institution from carrying on any such experiments either for a specified period or indefinitely, or may allow the person or institution to carry on such experiments only subject to such special conditions as the Committee may think fit to impose.

20. *Penalties.*—If any person—

- (a) contravenes any order made by the Committee under section 19; or
- (b) commits a breach of any condition imposed by the Committee under that section; he shall be punishable with fine which may extend to two hundred rupees, and when the contravention or breach of condition has taken place in any institution, the person in charge of the institution shall be deemed to be guilty of the offence and shall be punishable accordingly.

CHAPTER V

SLAUGHTER OF ANIMALS

21. *Slaughter-house defined.*—In this Chapter, “slaughter-house” means any building, premises or place used in connection with the business of killing animals for the purposes of food for the public.

22. *Application of Chapter.*—This Chapter shall apply only to such State or to such areas in any State as the Central Government, after consultation with the State Government concerned, may, by notification in the Official Gazette, specify, and no such notification shall be issued unless the Central Government is satisfied that provision exists in the State or area, as the case may be, for the proper enforcement of the provisions of this Chapter.

23. *Provisions as to slaughter of animals.*—(1) Every animal to be slaughtered in a slaughter-house shall be instantaneously rendered insensible to pain or suffering by such mechanical, electrical, chemical or other means as the Central Government may, by notification in the Official Gazette, specify for the purpose.

(2) No person shall slaughter or cause to be slaughtered any animal in the view of another animal.

(3) If any person contravenes or fails to comply with or causes or permits any contravention of or non-compliance with any of the provisions of this section, or attempts to slaughter any animal in a slaughter-house otherwise, than in accordance with the said provisions, he shall be punishable with fine which may extend to two hundred rupees or with imprisonment which may extend to three months or with both:

Provided that no person shall be liable for any contravention of sub-section (1) in respect of the slaughter of any animal slaughtered without the infliction of unnecessary pain or suffering—

- (a) by the Muslim method by a Muslim holding a licence granted by the local authority for the area; or
- (b) by the Jhatka method by a Sikh holding a licence granted by the local authority for the area; or
- (c) by the Jewish method by a Jew holding a licence granted by the local authority for the area;

for so long as the State Government has not, by notification in the Official Gazette, after ascertaining the opinion of the persons concerned, declared the provisions of that sub-section to apply in respect of such slaughterers also.

24. *Enforcement of provisions of Chapter by local authorities.*—It shall be the duty of every local authority in any State or area to which the provisions of this Chapter have been made applicable to enforce the provisions thereof in relation to any slaughter-house provided or established by it, and the local authority may, if it thinks fit, employ persons to slaughter animals or render them insensible to pain or suffering in accordance with the provisions of this Chapter, and may levy such charges as it considers reasonable for the services of the persons so employed.

25. *Licences.*—(1) A licence to slaughter or render animals insensible to pain and suffering in accordance with the provisions of this Act shall not be granted except to a person of the age of twenty-one years or upwards who is, in the opinion of the local authority, a fit and proper person to hold such a licence.

(2) A licence under this section shall be valid only in the area within the local limits of the jurisdiction of the local authority granting the same and for such period as the local authority may determine and may be renewed from time to time.

(3) The local authority may suspend a licence at any time for such period as may be determined, and where it is satisfied that the person is no longer a fit and proper person to hold a licence, may revoke the licence.

(4) Any person aggrieved by the refusal of the local authority to grant a licence or by the suspension or revocation of a licence may appeal to the Magistrate of the district within one month of the intimation thereof, and the decision of the District Magistrate shall be final.

(5) A fee may be charged by the local authority for each licence, and a fee for every renewal thereof.

(6) The provisions of this section shall apply to any licence granted by the local authority for the purposes of the provisions of this Act with regard to the Muslim, Jhatka and Jewish methods of slaughter.

CHAPTER VI

PERFORMING ANIMALS

26. *"Exhibit" and "Train" defined.*—In this Chapter, "exhibit" means exhibit at any entertainment to which the public are admitted or exhibit in any street or other public place, whether on payment of money or otherwise, and "train" means train for the purpose of any such exhibition, and the expressions "exhibitor" and "trainer" have respectively the corresponding meanings.

27. *Restriction on exhibition and training of performing animals.*—No person shall exhibit or train—

- (i) any performing animal unless he is registered in accordance with the provisions of this Chapter;
- (ii) as a performing animal, any animal which the Central Government may, by notification in the Official Gazette, specify as an animal which shall not be exhibited or trained as a performing animal or be registered in respect of any such animal.

28. *Procedure for registration.*—(1) Every person desirous of exhibiting or training any performing animal shall, on making an application in the prescribed form to the prescribed authority, and on payment of the prescribed fee, be registered under this Act unless he is a person who, in pursuance of an order made by the court under this Chapter, is prohibited from being so registered.

(2) An application for registration under this Chapter shall contain such particulars as to the animals and as to the general nature of the performances in which the animals are to be exhibited or for which they are to be trained as may be prescribed, and the particulars so given shall be entered in the register maintained by the prescribed authority.

(3) The prescribed authority shall give to every person whose name appears on the register kept by them, a certificate of registration in the prescribed form containing the particulars entered on the register.

(4) Every register kept under this Chapter shall at all reasonable times be open for inspection on payment of the prescribed fee, and any person shall, on payment of the prescribed fee, be entitled to take copies thereof or make extracts therefrom.

(5) Any person entered on the register shall, subject to the provisions of any order made under this Act by any court, be entitled, on making an application for the purpose, to have the particulars entered in the register with respect to him varied, and where any such particulars are so varied, the existing certificate shall be cancelled and a new certificate issued.

29. *Power of court to prohibit or restrict exhibition and training of performing animals.*—(1) Where it is proved to the satisfaction of any Magistrate on a complaint made by a police officer or an officer of the prescribed authority referred to in section 28 that the training or exhibition of any performing animal has been accompanied by unnecessary pain or suffering and should be prohibited or allowed only subject to conditions, the court may make an order against the

person in respect of whom the complaint is made, prohibiting the training or exhibition or imposing such conditions in relation thereto, as may be specified by the order.

(2) Any court by which an order is made under this section shall cause a copy of the order to be sent as soon as may be after the order is made to the prescribed authority by which the person against whom the order is made is registered, and shall cause the particulars of the order to be endorsed upon the certificate held by that person, and that person shall produce his certificate on being so required by the court for the purposes of endorsement, and the prescribed authority to which a copy of an order is sent under this section shall enter the particulars of the order on that register.

30. *Power to enter premises.*—(1) Any person authorised in writing by the prescribed authority referred to in section 28 duly authorised in that behalf by that authority, and any police officer not below the rank of a head constable (by whatever name called), may—

- (a) enter at all reasonable times and inspect any premises in which any performing animals are being trained or exhibited or kept for training or exhibition, and any such animals found therein; and
- (b) require any person who he has reason to believe is a trainer or exhibitor of performing animals to produce his certificate.

(2) No person or police officer referred to in sec. 30 shall be entitled under this section to go on or behind the stage during a public performance of performing animals.

31. *Offences.*—(1) If any person—

- (a) not being registered under this Chapter, exhibits or trains any performing animal; or
- (b) being registered under this Act, exhibits or trains any performing animal with respect to which or in a manner with respect to which he is not registered; or
- (c) exhibits or trains as a performing animal, any animal which is not to be used for the purpose by reason of a notification issued under clause (ii) of sub-section (i) of section 27; or
- (d) obstructs or wilfully delays any person or police officer referred to in section 30 in the exercise of his powers under this Act as to entry and inspection; or
- (e) conceals any animal with a view to avoiding such inspection; or
- (f) being a person registered under this Act, on being duly required in pursuance of this Act to produce his certificate under this Act, fails without reasonable excuse so to do; or
- (g) applies to be registered under this Act when prohibited from being so registered; he shall be punishable on conviction with fine which may extend to five hundred rupees or with imprisonment which may extend to three months or with both.

32. *Exemptions.*—Nothing contained in this Chapter shall apply to—

- (a) the training of animals for *bona fide* military or police purposes or the exhibition of any animals so trained; or
- (b) any animals kept in any zoological garden or by any society or association which has for its principal object the exhibition of animals for educational or scientific purposes.

CHAPTER VII

MISCELLANEOUS

33. *Power of court to deprive person convicted of cruelty of ownership of animal.*—If the owner of any animal shall be guilty of any offence under this Act, the court, upon his conviction thereof, may, if it thinks fit, in addition to any other punishment, deprive the person of the ownership of the animal and make such order as to the disposal of the animal as it thinks fit under the circumstances:

Provided that no order shall be made under this section unless it is shown by evidence as to a previous conviction under this Act or as to the character of the owner or otherwise as to his treatment of the animal that the animal, if left with the owner, is likely to be exposed to further cruelty.

34. *Presumption as to guilt in certain cases.*—If any person is charged with the offence of killing a goat contrary to the provisions of clause (m) of subsection (1) of section 11, and it is proved that such person had in his possession, at the time the offence was alleged to have been committed, the skin of a goat with any part of the skin of the head attached thereto, it shall be presumed, until the contrary is proved, that such goat was killed in an unnecessarily cruel manner, and that the person in possession of such skin had reason so to believe.

35. *Cognizability of offences.*—Notwithstanding anything contained in the Code of Criminal Procedure, 1898, an offence punishable under clause (m), clause (o), clause (p) or clause (q) of section 11 or section 12 shall be a cognizable offence within the meaning of that Code.

36. *Powers of search and seizure.*—(1) If a police officer not below the rank of sub-inspector has reason to believe that an offence under clause (m) of subsection (1) of section 11 in respect of a goat is being, or is about to be, or has been, committed in any place, or that any person has in his possession the skin of a goat with any part of the skin of the head attached thereto, he may enter and search such place or any place in which he has reason to believe any such skin to be, and may seize such skin and any article or thing used or intended to be used in the commission of such offence.

(2) If a police officer not below the rank of sub-inspector, or any person specially authorised by the State Government in this behalf, has reason to believe that *phooka* or *doom dev* has just been, or is being, performed on any animal within the limits of his jurisdiction, he may enter any place in which he has reason to believe such animal to be, and may seize the animal and produce it for examination by the veterinary officer in charge of the area in which the animal is seized.

37. *Search Warrants.*—(1) If a Magistrate of the first or second class or a Presidency Magistrate or a Sub-divisional Magistrate or a Commissioner of Police or District Superintendent of Police, upon information in writing, and after such inquiry as he thinks necessary, has reason to believe that an offence under this Act is being, or is about to be, or has been, committed in any place, he may either himself enter and search or by his warrant authorise any police officer not below the rank of sub-inspector to enter and search the place.

(2) The provisions of the Code of Criminal Procedure, 5 of 1898, relating to searches shall, so far as those provisions can be made applicable, apply to searches under this section and section 36.

38. *General power of seizure for examination.*—Any police officer above the rank of a constable or any person authorised by the State Government in this behalf, who has reason to believe that an offence against this Act has been, is being, committed in respect of any animal, may, if in his opinion the circumstances so require, seize the animal and produce the same for examina-

tion by the nearest Magistrate or by such veterinary officer as may be prescribed, and such police officer or authorised person may, when seizing the animal, require the person in charge thereof to accompany it to the place of examination.

39. *Treatment and care of animals.*—(1) The State Government may, by general or special order, appoint infirmaries for the treatment and care of animals in respect of which offences against this Act have been committed, and may authorise the detention therein of any animal pending its production before a Magistrate.

(2) The Magistrate before whom a prosecution for an offence against this Act has been instituted may direct that the animal concerned shall be treated and cared for in an infirmary, until it is fit to perform its usual work or is otherwise fit for discharge, or that it shall be sent to a *pinjrapole*, or, if the veterinary officer in charge of the area in which the animal is found or such other veterinary officer as may be authorised in this behalf by rules made under this Act certifies that it is incurable or cannot be removed without cruelty, that it shall be destroyed.

(3) An animal sent for care and treatment to an infirmary shall not, unless the Magistrate directs that it shall be sent to a *pinjrapole* or that it shall be destroyed, be released from such place except upon a certificate of its fitness for discharge issued by the veterinary officer in charge of the area in which the infirmary is situated or such other veterinary officer as may be authorised in this behalf by rules made under this Act.

(4) The cost of transporting an animal to an infirmary or *pinjrapole*, and of its maintenance and treatment in an infirmary, shall be payable by the owner of the animal in accordance with a scale of rates to be prescribed by the District Magistrate or, in Presidency-towns, by the Commissioner of Police:

Provided that when the Magistrate so orders, on account of the poverty of the owner of the animal, no charge shall be payable for the treatment of the animal.

(5) If the owner refuses or neglects to pay such cost or to remove the animal within such time as a Magistrate may prescribe, the Magistrate may direct that the animal be sold and that the proceeds of the sale be applied to the payment of such cost.

(6) The surplus, if any, of the proceeds of such sale shall on application made by the owner within two months from the date of the sale, be paid to him.

40. *Limitation of prosecutions.*—A prosecution for an offence against this Act shall not be instituted after the expiration of three months from the date of the commission of the offence.

41. *Delegation of powers.*—The Central Government may, by notification in the Official Gazette, direct that all or any of the powers exercisable by it under this Act may, subject to such conditions as it may think fit to impose, be also exercisable by any State Government.

42. *Power to make rules.*—(1) The Central Government may, by notification in the Official Gazette, and subject to the condition of previous publication, make rules to carry out the purposes of this Act.

(2) In particular, and without prejudice to the generality of the foregoing power, the Central Government may make rules—

- (a) fixing the terms and conditions of service of members of the Board, the allowances payable to them and the manner in which they may exercise their powers and discharge their functions;
- (b) prescribing the maximum weight of loads to be carried or drawn by any animal;

- (c) prescribing conditions to prevent the over-crowding of animals;
- (d) prescribing the period during which, and the hours between which, any class of animals shall not be used for draught purposes;
- (e) requiring persons impounding or confining or causing to be impounded or confined any animal in any pound to supply the animal with a sufficient quantity of water and food at appropriate intervals and for that purpose authorising all such steps as may be necessary to be taken;
- (f) prohibiting the use of any bit or harness involving cruelty to animals;
- (g) requiring persons carrying on the business of a farrier to be licensed and registered, and levying a fee for the purpose;
- (h) prescribing the precautions to be taken in the capture of animals for purposes of sale, export or for any other purpose, and the different appliances or devices that may alone be used for the purpose; and the licensing of such capture and the levying of fees for such licences;
- (i) prescribing the precautions to be taken in the transport of animals, whether by rail, road, inland waterway or sea, and regulating the manner in which and the cages or other receptacles in which they may be so transported;
- (j) requiring persons owning or in charge of premises in which animals are kept or milked to register such premises, to comply with such conditions as may be laid down in relation to the boundary walls or surroundings of such premises, to permit their inspection for the purpose of ascertaining whether any offence under this Act is being, or has been, committed therein, and to expose in such premises copies of section 12 in a language or languages commonly understood in the locality.
- (k) prescribing the form in which applications for registration under Chapter VI may be made, the particulars to be contained therein, the fees payable for such registration and the authorities to whom such applications may be made;
- (l) any other matter which has to be or may be prescribed.

(3) If any person contravenes, or abets the contravention of, any rules made under this section, he shall be punishable with fine which may extend to one hundred rupees or with imprisonment which may extend to three months or with both.

43. *Persons authorised under section 38 to be public servants.*—Every person authorised by the State Government under section 38 shall be deemed to be a public servant within the meaning of section 21 of the Indian Penal Code.

44. *Indemnity.*—No suit, prosecution or other legal proceeding shall lie against any person who is, or who is deemed to be, a public servant within the meaning of section 21 of the Indian Penal Code in respect of anything in good faith done or intended to be done under this Act.

45. *Repeal of Act XI of 1890.*—The Prevention of Cruelty to Animals Act, 1890, is hereby repealed.

APPENDIX II

Bill No. XXV of 1953

THE PREVENTION OF CRUELTY TO ANIMALS BILL, 1953

(AS INTRODUCED IN THE COUNCIL OF STATES)

A

BILL

to prevent the infliction of cruelty on animals
and for that purpose to amend and codify the
law relating to prevention of cruelty to animals.

BE it enacted by Parliament as follows :—

1. *Short title, extent and commencement.*—(1) This Act may be called the Prevention of Cruelty to Animals Act, 1953.

(2) It extends to the whole of India except the State of Jammu and Kashmir.

(3) It shall come into force in any State on such date as the Central Government may, by notification in the Official Gazette, direct, and thereupon any other enactment in force in the State for the prevention of cruelty to animals shall, in so far as it is inconsistent with the provisions of this Act, cease to have effect in the State except as respects anything done or any offence committed or any fine or penalty incurred.

2. *Definitions.*—In this Act, unless the context otherwise requires,—

- (1) “animal” means any living being endowed with sensation and voluntary motion but excluding a human being;
- (2) “phooka” or “doom dev” includes any process of introducing air or any substance into the female organ of a milch animal with the object of drawing off from the animal any secretion of milk;
- (3) “prescribed” means prescribed by rules made under this Act;
- (4) “street” includes any way, road, lane, square, court, alley, passage, or open space whether a thoroughfare or not to which the public have access;
- (5) “vivisection” means the causing of any pain or injury or the doing of anything which may result in pain or injury to any animal in connection with—
 - (a) experimentation in scientific, medical, industrial or any other kind of research;
 - (b) the manufacture, testing, or standardising of drugs, serums, vaccines, toxins, poisons, war materials, or any medical, pharmaceutical, chemical, or other preparation;
 - (c) instruction or training in any field of science, whether in medicine, biology, physiology, pathology, psychology, warfare, or any other science, and whether by way of demonstrations, or practice operations, or in any other way.

3. *Prohibition of certain forms of cruelty to animals.*—(1) No person shall—

- (a) Override, overdrive, overload, beat whip, pierce with nailed sticks or any sharp instruments, twist the tail or otherwise treat any

animal so as to subject it to unnecessary pain or suffering, or being the owner, permit any animal to be so treated; or

- (b) bind, convey, carry or consign or, being the owner, permit to be bound, conveyed, carried, or consigned any animal in such manner or position as to subject that animal to unnecessary pain or sufferings; or
- (c) incite any animal to fight or bait any animal or abet any such incitement or baiting, unless such fighting or baiting is not likely to cause any injury or suffering to such animal and all reasonable precautions have been taken to prevent injury or suffering from being so caused; or
- (d) without reasonable excuse permit any disabled or diseased animal of which he is owner or is in charge to die in any street or abandon any animal in circumstances which render it likely that it will suffer pain by reason of starvation or thirst; or
- (e) employ in any work or labour any animal which by reason of any disease, infirmity, wound, sore, or other cause is unfit to be so employed, or permit any such unfit animal in his possession or under his control to be so employed; or
- (f) offer for sale or without reasonable excuse have in his possession any live animal which is suffering pain by reason of mutilation, starvation, thirst, overcrowding or other ill-treatment; or
- (g) capture, cage, or confine a wild bird for any purpose except scientific study.

(2) An owner or other person in possession or control of an animal shall be deemed to have abetted an offence under clause (a) or clause (b) or clause (d) or clause (e) of sub-section (1) if he shall have failed to exercise reasonable care or supervision with a view to the prevention of such offence.

4. *Prohibition of practising phooka or doom dev.*—No person shall perform upon any milch animal the operation called *phooka* or *doom dev* or permit such operation to be performed upon such animal in his possession or under his control.

5. *Prohibition of avoidable cruelty in keeping or confining animals.*—(1) No person shall keep or confine an animal in any zoo, temple, palace, stable, dairy, or other place of a public or private nature otherwise than as provided under sub-section (2).

(2) The Central Government may, by rules made in this behalf, provide that animals may be kept or confined in any place of a public or private nature except those prohibited under sub-section (3), in such manner and subject to such conditions as will ensure adequate protection from weather and adequate space, food, water, sanitation, air, light, exercise and care.

(3) No new institution, public or private, for the exhibition or study of animals and involving their caging or confinement shall be established after the commencement of this Act except under a licence issued in accordance with rules made in this behalf under section 22.

6. *Prohibition of avoidable cruelty in the transport of animals.*—No animal shall be exported from India or loaded at an Indian port, nor transported within India by mechanical means except in such manner and in accordance with such regulations as may be prescribed in this behalf with the object of ensuring proper handling, adequate space, food, water, sanitation, air, light, exercise and attention, and adequate protection from weather and other exposure.

7. *Prohibition of exhibition and training of performing animals.*—No person shall exhibit any animal in any circus or other place of entertainment to which the public have access, whether on payment of money or otherwise, or train any animal for any such purpose.

8. *Prohibition of export or import of animals in certain cases.*—No animal shall be exported from or imported into the territories to which this Act extends where the export or import is for the purpose of—

- (a) subjecting the animal to vivisection, or selling the animal, directly or indirectly, for use in connection with vivisection; or
- (b) subjecting the animal to any other cruelty which in the territories to which this Act extends, would constitute an offence against this Act; or
- (c) slaughtering the animal.

9. *Prohibition of vivisection.*—Vivisection is prohibited.

10. *Prohibition of cruelty in sport.*—No animal shall be killed, or maimed, or subjected to any injury or pain in connection with sport or any amusement or entertainment, whether by shooting, hunting, or baiting, or in any other way :

Provided that nothing in this section shall apply to shooting, hunting or fishing by a person in pursuit of his legitimate means of livelihood.

11. *Prohibition of cruelty to animals in the name of or for religion.*—No animal shall be killed, tortured, maimed, subjected to any injury or pain in the name of or for religion in connection with the rites, or usages of any race, tribe, sect, or class.

12. *Prohibition of killing of animals generally except by humane methods.*—

(1) No person shall kill any animal except by such method and in such manner as to prevent avoidable pain and suffering to the animal being killed.

(2) If any person has in his possession, at the time an offence under sub-section (1) is alleged to have been committed, the skin of any animal with any part of skin of the head attached thereto, it shall be presumed, until the contrary is proved, that such animal was killed in an unnecessarily cruel manner and that the person in possession of such skin had contravened the provisions of sub-section (1).

(3) No person engaged in the extermination of unwanted animals on behalf of any government or other public or private institution shall kill an animal except in such manner and in accordance with such methods as may be prescribed in this behalf.

13. *Prohibition of slaughter of certain animals except in a slaughter-house according to humane methods.*—(1) This section applies to buffalo, cattle, sheep, goats and pigs and their young, and to such other animals as the Central Government may, by notification in the Official Gazette, specify.

(2) No animal to which this section applies shall be slaughtered except in a slaughter-house recognised as such by the municipal, district, or State Government concerned.

(3) No animal to which this section applies shall be slaughtered in a slaughter-house except in accordance with humane methods so as to prevent avoidable pain, fear, and suffering and cause instantaneous death.

(4) In no case shall the following be slaughtered—

- (a) a pregnant animal;
- (b) an animal having one or more young under ten months of age;
- (c) any young animal under ten months of age, or in or extracted from the womb.

(5) No person shall use any instrument for slaughtering or stunning any animal unless his ability and physical condition qualify him to use it without inflicting unnecessary pain on the animal and no person shall use mechanically operated instrument in such a manner or in such circumstances or in such a state of want of repair as to incur the risk of causing unnecessary suffering to an animal.

14. *Penalties.*—(1) If any person contravenes the provisions contained in section 3, or section 5, or section 6, or section 7, or section 8, he shall be punished, in the case of a first offence, with fine which may extend to fifty rupees, or with imprisonment for a term which may extend to one month and, in the case of a second or subsequent offence committed within three years of the previous offence, with fine which may extend to one hundred rupees, or with imprisonment for a term which may extend to three months, or with both.

(2) If any person contravenes the provisions contained in section 4, or section 9, or section 10, or section 11, or section 12, or section 13, he shall be punished, in the case of a first offence, with fine which may extend to five hundred rupees, or with imprisonment, which may extend to two years, or with both, and in the case of a second or subsequent offence, with fine which may extend to one thousand rupees, or with imprisonment which may extend to three years, or with both.

(3) A court convicting any person under this Act may—

- (a) declare that the animal in respect of which an offence has been committed shall be forfeited to Government; and
- (b) order payment of any fine imposed under this Act of an amount not exceeding one-tenth of the fine to any person (other than a police officer or officer of a society or institution concerned with the prevention of cruelty to animals) who has given information leading to the conviction.

15. *Search and seizure.*—(1) If a magistrate of the first or second class, or a Commissioner of Police or District Superintendent of Police, upon information in writing and after such inquiry as he thinks necessary, has reason to believe that an offence against this Act is being or is about to be, or has been committed in any place, he may either himself enter and search or by his warrant authorize any police officer, not below the rank of sub-inspector, to enter and search the place.

(2) Notwithstanding anything contained in sub-section (1) if a police officer, not below the rank of sub-inspector, has reason to believe that an offence under section 4 or section 9 or section 11 or section 13 in respect of any animal is being or is about to be committed in any place within the limits of his jurisdiction, he may enter any place in which he has reason to believe such animal to be and may seize the animal.

(3) The provisions of the Code of Criminal Procedure, 1898, relating to searches under that Code shall, so far as those provisions can be made applicable, apply to any search under this section.

16. *General power of seizure for examination.*—(1) Any police officer above the rank of a constable or any person authorized by the State Governments in this behalf, who has reason to believe that an offence against this Act has been or is being committed in respect of any animal, may, if in his opinion the circumstances so require, seize the animal and produce the same for examination by the nearest Magistrate or by such Veterinary Officer as may be designated in this behalf by rules made under this Act; and such police officer or authorized person may, when seizing the animal, require the person in charge thereof to accompany it to the place of examination.

(2) Every person authorised by the State Government under sub-section (1) shall be deemed to be a public servant within the meaning of section 21 of the Indian Penal Code.

17. *Limitation for prosecutions.*—No prosecution for any offence, against this Act, shall be instituted after the expiration of three months from the date of the commission of the offence.

18. *Destruction of suffering animals.*—(1) When any Magistrate, Commissioner of Police or District Superintendent of Police has reason to believe that an

offence against this Act has been committed in respect of any animal, he may direct the immediate destruction of the animal if in his opinion its sufferings are such as to render such a direction proper.

(2) Any police officer above the rank of a constable who finds any animal so diseased, or so severely injured, or in such a physical condition that it cannot, in his opinion, be removed without cruelty, may, if the owner is absent or refuses to consent to the destruction of the animal, forthwith summon the Veterinary Officer in charge of the area in which the animal is found and if the Veterinary Officer certifies that the animal is mortally injured, or so severely injured, or in such a physical condition that its destruction is desirable, the police officer may, after obtaining orders in that behalf from a Magistrate, destroy the animal or cause it to be destroyed.

19. *Treatment and care of animals.*—(1) This section shall have effect only in those States in which the State Governments concerned have appointed infirmaries for the treatment and care of animals.

(2) The Magistrate before whom a prosecution for an offence against this Act has been instituted may direct that the animal concerned shall be treated and cared for in an infirmary, until it is fit to perform its usual work or is otherwise fit for discharge, or that it shall be sent to a pinjrapole, or, if the Veterinary Officer in charge of the area in which the animal is found or any other Veterinary Officer authorised by rules made in this behalf certifies that it is incurable or cannot be removed without cruelty, that it shall be destroyed.

(3) An animal sent for care and treatment to an infirmary shall not, unless the Magistrate directs that it shall be sent to a pinjrapole or that it shall be destroyed, be released from such place except upon a certificate of its fitness for discharge issued by the Veterinary Officer in charge of the area in which the infirmary is situated or such other Veterinary Officer as may be authorised in this behalf by rules.

(4) The cost of transporting an animal to an infirmary or pinjrapole and of its maintenance and treatment in an infirmary shall be payable by the owner of the animal in accordance with a scale of rates to be specified by the District Magistrate or, in Presidency towns, by the Commissioner of Police:

Provided that when the Magistrate so orders, on account of the poverty of the owner of the animal, no charge shall be payable for the treatment of the animal.

(5) If the owner refuses or neglects to pay such cost or to remove the animal within such time as the Magistrate may fix, the Magistrate may direct that the animal be sold and that the proceeds of the sale be applied to the payment of such cost.

(6) The surplus, if any, of the proceeds of such sale shall, on application made by the owner within two months from the date of the sale, be paid to him.

20. *Offences under this Act to be cognizable.*—Notwithstanding anything contained in the Code of Criminal Procedure, 1898, an offence punishable under this Act shall be a cognizable offence within the meaning of that Code.

21. *Indemnity.*—No suit, prosecution or other legal proceeding shall lie against any person who is, or who is deemed to be, a public servant within the meaning of section 21 of the Indian Penal Code, in respect of anything in good faith done or intended to be done under this Act.

22. *Power to make rules.*—(1) The State Government may, by notification in the Official Gazette, and subject to the condition of the previous publication, make rules to carry out the purposes of this Act.

(2) In particular, and without prejudice to the generality of the foregoing power, the State Government may make rules—

(a) Fixing the maximum weight of loads to be carried or drawn by any animal;

- (b) specifying the period during which, and the hours between which, buffaloes and any other animals shall not be used for draught purposes;
- (c) specifying the purposes to which fines realized under this Act may be applied, including such purposes as the maintenance of infirmaries, pinjrapoles and veterinary hospitals;
- (d) prohibiting the use of any bit or harness involving cruelty;
- (e) requiring persons owning or in charge of, premises in which animals are kept or milked to register such premises, to permit their inspection for the purpose of ascertaining whether any offence against section 4 is being, or has been committed therein, display and to expose in such premises copies of sections 4 and 14 in a language or languages commonly understood in the locality;
- (f) requiring persons carrying on the business of a farrier, or persons other than veterinarians who castrate animals to be licensed and registered;
- (g) laying down the manner in which and the conditions subject to which animals may be kept or confined in a zoo or any other public or private place;
- (h) imposing restrictions with the object of preventing vivisection;
- (i) laying down the manner in which and the methods subject to which dogs and any other unwanted animals may be caught, impounded, and killed;
- (j) prohibiting the use of certain cruel traps and snares and certain cruel methods of capture and killing in hunting;
- (k) laying down the manner in which animals are to be handled, confined and attended during transport by mechanical means and during loading and unloading operations;
- (l) requiring persons owning, or in charge of, slaughter-houses to register, or acquire licenses for, the same, to permit their inspection for the purpose of ascertaining whether any offence against section 13 is being or has been committed therein, to submit proof of possession of an appropriate instrument for slaughter as a condition of registration or licensing, and to expose in such premises copies of sections 13 and 14 in a language or languages commonly understood in the locality.

STATEMENT OF OBJECTS AND REASONS

Although in India certain laws have been passed dealing with the subject of cruelty to animals, they are neither comprehensive nor inclusive of all the cruelties which are outlawed or controlled in other countries. The teaching of Ahimsa has animated the thought and life of India from very ancient times from Mahavir, Buddha, and Asoka, down to modern times. During the reign of Asoka, whose Dharma Chakra we have accepted as the symbol of our National Flag there were comprehensive laws to ensure the well-being of animals. Even today according to Gandhiji, "we should be able to refuse to live if the price of living be the torture of sentient being".

In order to promote the essential doctrine of Ahimsa or non-injury which has characterised Indian thought, this Bill seeks to make provision to abolish cruelty and thereby promote the moral well-being of man.

RUKMINI DEVI ARUNDALE.

NEW DELHI;

The 2nd November, 1953.

APPENDIX III

QUESTIONNAIRE

(N.B.—In view of the limited time at the disposal of the Committee, the replies to the Questionnaire may kindly be sent at the latest by the 10th July, 1955 to the Secretary, Prevention of Cruelty to Animals Committee, Ministry of Food & Agriculture, Government of India, New Delhi.)

The questionnaire deals with:—

- I. Animal welfare in general.
- II. Keeping or confining animals.
- III. Transport of animals.
- IV. Performing animals.
- V. Prohibition of export or import of animals in certain cases.
- VI. Animal experimentation.
- VII. Prohibition of cruelty in sport.
- VIII. Prohibition of cruelty in the name of Religion.
- IX. Humane slaughter.
- X. Treatment and care of animals.

I. ANIMAL WELFARE IN GENERAL

1. Are there any laws or rules for the prevention of cruelty to animals in force in your State? If so, mention them and send copies thereof, if possible.
2. Do you find existing laws and rules for the prevention of cruelty to animals deficient? If so, in what respects?
3. Do you think a new comprehensive Act is necessary? If so, should it be by the Central or the State Legislature?
4. What is the administrative machinery at present existing for welfare of animals in your State, and what measures do you suggest for improving it?
5. In what manner are schemes of animal welfare related to the social well-being of the people in your region?
6. Do you think that recognised and prominent humanitarian institutions and other Societies for the Prevention of Cruelty to Animals should be invested with powers for detecting offences under the S.P.C.A. Act—whether the Act now in existence or any Act that might be enacted in future?

II. KEEPING OR CONFINING ANIMALS

7. What are the hardships and cruelties you have observed in—
 - (a) the capturing, caging or confining of wild birds for sale as pets, or for food or for any other purposes,
 - (b) the confining of animals in zoos, temples, palaces, stables, dairies and other places?
8. Is it practicable to lay down rules according to which animals must be treated and kept while being caged or confined in places of a public or private nature? What do you suggest as ways of enforcing such rules?

9. What specified rules should be made in this behalf in order to ensure adequate protection from weather, adequate space, food, water, sanitation, air, light, exercise and care?

10. What do you think should be the pattern after which all zoos should henceforth be established in this country to avoid cruelty to animals?

III. TRANSPORT OF ANIMALS

11. What are the most common or painful types of cruelty involved in the transport of animals in India and the loading and confinement of animals at Indian ports in connection with export?

12. What regulations would you prescribe in this connection with the object of ensuring proper handling, adequate space, food, water, sanitation, air, light, exercise and attention, and adequate protection from weather, and other exposure?

IV. PERFORMING ANIMALS

13. Do you consider that performances by animals for the personal gains of men as in circuses are associated with cruelties? If so, describe the nature of such cruelties, especially during training.

14. Do you think that apart from their entertainment value, such performances have any special or educative value?

15. Does it promote the love of animals or birds in the hearts of the young? Has it a good moral effect upon the spectators?

16. If you are not in favour of such exploitation of animals for personal gain, what steps do you propose to stop it?

17. Do you think it possible, basing your answer on observation, to train an animal to perform before the public and *on demand* at a specific time and place without treating it cruelly?

18. Do you think the exhibition of performing animals should be prohibited completely or regulated by law?

19. If the exhibition of performing animals was abolished by law in India, what do you estimate will be the consequences in relation to the persons and animals now taking part in this business?

20. If you are of the view that exhibition of performing animals should be stopped, what do you think could be done with the various animals now involved in this business? Will there be any that cannot be disposed of in normal ways; and, if so, what do you suggest may be done with them?

21. What do you suggest as a practical means for ensuring the enforcement of any law that may be enacted, prohibiting the exhibition of performing animals?

V. PROHIBITION OF EXPORT OR IMPORT OF ANIMALS IN CERTAIN CASES

22. In connection with the import and export of animals, do you think it right that India should export or import animals for slaughter or for use in any of the ways which are prohibited as offences against the law in India, being cruel?

23. Do you think it practicable and enforceable to prohibit such export or import?

24. In connection with the export of monkeys largely intended for use in vivisection in foreign countries, do you think it possible to regulate their export

so as to avoid their use for vivisection; or do you think that only a complete ban on the export of monkeys will stop this use? If you think it wrong, what practical steps would you suggest for making such prohibition effective?

25. Are you aware of any other type of animals which are imported or exported for use in vivisection?

26. Can you list the various types of animals exported or imported for uses that you think to be cruel? Name the uses to which they are put and give any other information on numbers and shipments involved, which may be available to you.

VI. ANIMAL EXPERIMENTATION

27. Are animals used for scientific experiments in your State? If so, for what experiments?

28. Is any cruelty or suffering involved in these experiments to your knowledge? If so, please give details and instances.

29. (a) Are any experiments on live animals carried out in your institutions for—

- (i) purposes of diagnosis;
- (ii) purposes of research;
- (iii) purposes of teaching and demonstration;
- (iv) purposes of preparation of sera;
- (v) purposes of standardisation of sera, vaccines and drugs; and
- (vi) medico-legal purposes?

What is the number of experiments under each category?

(b) What is the nature of these experiments? How many are—

- (i) injections;
- (ii) operations without anaesthesia;
- (iii) operations with anaesthesia; or
- (iv) any other type?

(c) In the case of operations with anaesthesia, how many animals are killed before recovering consciousness? In the case of these animals which are allowed to recover consciousness, how are they looked after and by whom?

30. What is the percentage of animals of each group that are killed or maimed out of the total number of animals used?

31. What are the rules and regulations in force regulating the nature of the experiments?

32. Would you like restrictions to be imposed on the experiments that are being carried on, from the point of view of prevention of cruelty to animals? If so, what are the safeguards or conditions you would suggest?

33. What are the types of work carried on in your laboratories which need *experimentation on the animals*?

34. Have you investigated the way in which animals are procured for the purpose of animal experimentation?

35. If so, can you report on the methods of procurement and how much pain and suffering is involved for the animals concerned?

36. If you have investigated the housing of animals in the places using them for experiments, please report what conditions were observe before, during and after their use.

37. (a) How is vaccine lymph prepared in your State? Do you think that the calves from whom vaccine lymph is obtained are maimed and in any way rendered useless afterwards?

(b) How many deaths from snake-bite occur in your State?

38. What is your opinion as to the ethics or utility of animal experiments? Can the practice be justified from the ethical point of view?

39. If you consider the practice unethical, do you think it can be justified on grounds of utility?

40. Do you think animal experimentation should be prohibited by law in India?

41. If vivisection is prohibited by law in India, what do you suggest as the best practical means of enforcing the prohibition?

42. Have any methods alternative to vivisection been intensively studied as far as medical research is concerned? To what extent are they known?

43. Do the Principles and Practice of—

(a) Indian Systems of Medicine like Ayurveda, Siddha and Unani; and

(b) Homoeopathic System,

countenance the use of animal experiments involving *Himsa* (or Cruelty to Animals) for ascertaining the therapeutic values of medicines for use in human beings or their dosage? If not, kindly state reasons.

44. What is the view of Ayurveda, Siddha and Unani relating to the value of the practice of *Ahimsa* (or Non-cruelty) for promoting individual health and social well-being?

45. Are animals used for preparing remedies in Ayurvedic or other systems of medicine and for experimentation?

VII. PROHIBITION OF CRUELTY IN SPORT

46. Are you in favour of prohibiting all sport, such as hunting, shooting or fishing for pleasure? What steps do you suggest to enforce this prohibition in practice?

47. Do you have suggestions as to how such a sport may be differentiated from hunting, shooting or fishing as a legitimate means of livelihood?

VIII. PROHIBITION OF CRUELTY IN THE NAME OF RELIGION

48. Is there any custom of animal sacrifices in the name of religion in your area?

49. Apart from killing, are there any cruelties associated with such sacrifices? If there are, describe them briefly.

50. Is there any legislation in your State to prohibit such customs and cruelties connected with them? If there is, do you think it is adequate and effective?

IX. HUMANE SLAUGHTER

51. Do you have any licensing system for slaughter-houses in your area?

52. If the answer is in the affirmative, what is the number of licensed slaughter-houses and the requirements for licensing?

53. What is the approximate number of (a) cattle, (b) sheep, (c) goats and (d) pigs slaughtered every month in your area?

54. Give a description of the methods employed in slaughtering the animals, including the Muslim, Jewish and other methods.

55. What are your views on the introduction of humane slaughter* from the point of view of feasibility and execution?

56. Are there any provisions for the examination of the animals before and/or after slaughter?

57. Have you any control over the supervision of arrangements for the housing and feeding of the animals before slaughter?

58. Do you employ any staff for the supervision of slaughter-houses, and if so, can the same staff be employed to see that humane slaughter methods are enforced?

59. Have you a law for prohibiting the slaughter of pregnant animals, milch animals, animals below ten months of age and animals extracted from the womb? If so, is it properly enforced? Suggest improvements.

X. TREATMENT AND CARE OF ANIMALS

60. Do you employ animals to draw conservancy carts, water carts, etc.?

61. What arrangements have you to ensure that their health is properly looked after and they are not employed when sick?

62. How do you dispose of the animal after it becomes unserviceable?

63. What provision is made for dealing with stray or homeless animals? Are there public pounds or sanctuaries for this purpose? What happens to the strays when rounded up?

64. Where any class of animals is thought to endanger food supplies or public health and safety, what methods of extermination are used to remove them? Is any provision made by the State Government for their humane destruction?

65. What are the methods of castration used in your State, and what animals are castrated?

66. Would you suggest the castration of stray male dogs as a practical measure for preventing their propagation? Suggest ways and means for spreading knowledge of scientific methods of castration.

67. What are the different purposes for which he-buffaloes are used in your region? How are useless he-buffaloes disposed of? What suggestions have you for improving their condition and treatment?

68. Are young milch cattle slaughtered in your region when dry? Is there any law or rule either prohibiting their slaughter or for the proper care of them? In what ways is the law, if any, observed or eraded in your State? Suggest ways of enforcing the law.

69. Please suggest ways and means of promoting the welfare of animals along any lines not mentioned above.

*Humane slaughter is a method to prevent avoidable pain, fear and suffering and to cause death after the animal has been rendered unconscious.

APPENDIX IV

LIST OF ORGANISATIONS AND INDIVIDUALS WHO REPLIED TO THE QUESTIONARIES

A. INDIA

State			Sl. No.	Organization/Individual
(1)			(2)	(3)
GOVERNMENT DEPARTMENTS				
Andhra	..	..	1	Shri N. Ramesan, Deputy Secretary to the Government, Home Department, Kurnool.
			2	Major T. Murarim, Animal Husbandry Department, Andhra State, Egmore, Madras.
			3	Shri G. C. S. Naidu, Director of Public Health, Andhra State, Sterling Road, Madras.
			4	Major K. N. Rao, Director of Medical Services, Andhra State, Madras.
			5	Shri N. D. Sahni, Chief Conservator of Forests, Andhra State, Madras.
Assam	..	..	6	Dr. B. L. Choudhri, Deputy Director of Health Services, Shillong.
Bihar	..	..	7	Shri M. K. Mukherjee, Deputy Secretary to the Government of Bihar, Ranchi.
			8	Dr. S. M. Hassan, Deputy Director of Health Services, Bihar, Patna.
			9	Shri S. S. Prasad, Chief Conservator of Forests, Bihar, Ranchi.
			10	Shri C. Jha, Deputy Development Commissioner, Bihar, Patna.
Bombay	..	..	11	Shri M. I. Qazi, Assistant Secretary to the Government of Bombay, Home Department, Bombay.
			12	Shri W. P. Sadanha, Assistant Secretary to the Government, Agriculture and Forests Department, Bombay.
			13	Shri S. R. Chaddha, Director of Veterinary Services, Bombay State, Poona.
			14	Director of Public Health, Poona.
			15	The Surgeon-General with the Government of Bombay, Bombay.
			16	Shri S. F. Rodda, Assistant Director of Public Health, Public Health Laboratory, Poona.
			17	The Medical Officer of Health, Surat.
			18	Shri J. A. Singh, Chief Conservator of Forests, Government of Bombay, Poona.

APPENDIX IV—contd.

(1)	(2)	(3)
GOVERNMENT DEPARTMENTS—contd.		
Madhya Pradesh	.. 19	Shri B. K. Dube, Under Secretary to the Government of Madhya Pradesh, Agriculture Department, Nagpur.
	20	Director of Veterinary Services, Madhya Pradesh, Nagpur.
	21	Director of Health Services, Madhya Pradesh, Nagpur.
	22	Chief Conservator of Forests, Madhya Pradesh, Nagpur.
Madras	.. .. 23	Shri P. Sivasankaran Pillai, Agriculture (Food Production) Department, Madras.
	24	Dr. T. S. Adisubramaniam, Director of Public Health, Madras-6.
	25	Lt. Col. Sangham Lal, Director of Medical Services, Madras.
Orissa	.. ... 26	Assistant Secretary to the Government, Development Department, Bhubaneshwar, Orissa.
Punjab	.. .. 27	Shri R. P. Kapur, I. C. S., Home Secretary to the Government of Punjab, Simla.
	28	Secretary to the Government of Punjab, Health and Local Government Department, Chandigarh.
	29	Shri B. N. Handa, Director, Animal Husbandry and Warden of Fisheries, Richmond House, Simla.
	30	Dr. Gurbuxsh Singh, Director of Health Services, Punjab.
	31	Shri N. P. Mohan, Chief Conservator of Forests, Punjab, Simla.
Uttar Pradesh	.. .. 32	Dr. R. L. Kaura, Director of Animal Husbandry, Government of U. P., Lucknow.
	33	Shri D. L. Shah, Chief Conservator of Forests, Government of U. P., Lucknow.
West Bengal	.. .. 34	Deputy Secretary to the Government of West Bengal, Agriculture, Animal Husbandry and Forest Department, Calcutta.
	35	Director of Veterinary Services and Animal Husbandry, West Bengal, Calcutta.
	36	Office of the Conservator General of Forests, West Bengal, Calcutta.
Hyderabad	.. .. 37	The Secretary to the Government, Rural Reconstruction Department, Hyderabad.
	38	Director, Civil Veterinary Department, Hyderabad.

APPENDIX IV—contd.

(1)	(2)	(3)
GOVERNMENT DEPARTMENTS—contd.		
Hyderabad— <i>contd.</i>	39	Director, Medical and Health Services, Hyderabad.
	40	Chief Conservator of Forests, Hyderabad.
Jammu & Kashmir ..	41	Shri Abdul Rashid, Secretary to the Government of Jammu and Kashmir, Ministry of Development, Srinagar.
	42	Shri Hamam Din, Chief Conservator of Forests, Jammu and Kashmir, Srinagar.
Madhya Bharat ..	43	Director, Veterinary and Animal Husbandry Services, Gwalior.
	44	Director of Health Services, Government of Madhya Bharat, Gwalior.
	45	Deputy Director of Health Services, Northern Division, Gwalior.
	46	Chief Conservator of Forests, Madhya Bharat, Indore.
Mysore	47	The Director of Animal Husbandry Services, Government of Mysore, Bangalore.
	48	Director of Public Health Services, Mysore, Bangalore.
	49	Chief Conservator of Forests, Mysore, Bangalore.
	50	Development Commissioner, Office of the Development Commissioner for Community Project and N. E. S., Mysore, Bangalore.
	51	Shri M. C. Rangaswamy, Dairy Husbandry Officer, National Dairy Research Institute, Bangalore.
P.E.P.S.U.	52	Chief Secretary to the Government, Home Department, Government of Patiala and East Punjab States Union, Patiala.
	53	Director of Animal Husbandry, P.E.P.S.U., Patiala.
	54	Director of Health Services, P.E.P.S.U., Patiala.
	55	Conservator of Forests, P.E.P.S.U., Nabha.
Rajasthan	56	Additional Chief Secretary, Agriculture Department, Government of Rajasthan, Jaipur.
	57	Director of Medical and Health Services, Rajasthan, Jaipur.
	58	Chief Conservator of Forests, Government of Rajasthan, Kotah.

APPENDIX IV—contd.

(1)	(2)	(3)
GOVERNMENT DEPARTMENTS—contd.		
Saurashtra	59	The Deputy Secretary to the Government of Saurashtra, Home Department, Rajkot.
	60	Conservator of Forests, Saurashtra State, Rajkot.
Travancore-Cochin	61	Mr. George Thomas, Secretary to Government of Travancore-Cochin, Food Department (Food Section), Trivandrum.
	62	Additional Secretary to the Government of Travancore-Cochin, Secretariat, Chief Project B Section, Trivandrum.
	63	Director of Animal Husbandry, Government of Travancore-Cochin, Trivandrum.
	64	Director of Public Health, Trivandrum.
	65	Chief Conservator of Forests, Trivandrum.
Ajmer	66	The Deputy Secretary, Development Department, Government of Ajmer, Ajmer.
	67	The Director of Animal Husbandry and Assistant Secretary, S. P. C. A., Ajmer.
	68	Civil Surgeon, Ajmer.
	69	Divisional Forest Officer, Ajmer.
Bhopal	70	Secretary to the Development Department, Government of Bhopal, Bhopal.
	71	Director, Medical and Health Services, Bhopal.
	72	Chemist and Government Analyst, Putlighar, Bhopal.
	73	Conservator of Forests, Bhopal.
Coorg	74	Shri I. C. Subhiah, Chief Secretary, Government of Coorg, Coorg.
	75	Chief Veterinary Officer, Coorg.
	76	State Medical Officer, Coorg.
	77	Chief Conservator of Forests, Coorg.
	78	Development Commissioner, Community Project, Coorg.
Delhi	79	Shri M. L. Gupta, P. C. S., Under Secretary (Development) to the Government of Delhi, Delhi.
	80	Deputy Superintendent, Civil Veterinary Department, Delhi State, Delhi.

APPENDIX IV—contd.

(1)	(2)	(3)
GOVERNMENT DEPARTMENTS— <i>contd.</i>		
Himachal Pradesh ..	81	The Secretary, Agriculture and Animal Husbandry Department, Government of Himachal Pradesh, Simla.
	82	Civil Surgeon, Mahasu and Simla.
Kutch	83	Shri S. A. Ghatge, Chief Commissioner, Kutch, Bhuj.
	84	Animal Husbandry Officer, Kutch, Bhuj.
	85	Chief Medical Officer, Kutch, Bhuj.
Manipur	86	The Forest Officer, Manipur Government, Imphal.
Tripura	87	Deputy Secretary to the Government of Tripura, Agartala.
	88	Director of Health Services, Tripura, Agartala.
Vindhya Pradesh ..	89	The Deputy Secretary, Government of Vindhya Pradesh, Rewa.
Andaman and Nicobar Islands	90	Livestock Officer, Port Blair.
GOVERNORS AND RAJPRAMUKHS		
Andhra	91	Governor, Raj Bhawan, Kurnool.
Bihar	92	Governor's Seretariat, Raj Bhawan, Ranchi.
Bombay	93	Secretary to the Governor of Bombay, Bombay.
Madhya Pradesh ..	94	Governor, Madhya Pradesh, Nagpur.
Madras	95	Shri Sri Prakasa, Governor, Madras.
Orissa	96	Secretary to the Governor, Orissa.
Punjab	97	Secretary to the Governor, Punjab.
West Bengal	98	Governor's Seretariat, West Bengal.
P.E.P.S.U.	99	Secretary to H. H. the Rajpramukh, Patiala.
Saurashtra	100	Secretary to His Highness the Rajpramukh, Saurashtra State, Jamnagar.
Travancore-Cochin ..	101	Secretary to His Highness the Rajpramukh, Travancore-Cochin, Trivandrum.
CHIEF MINISTERS		
Uttar Pradesh	102	Chief Minister's Sectt., U. P.
Rajasthan	103	Chief Minister's Office, Rajasthan.

APPENDIX IV—contd.

(1)	(2)	(3)
MUNICIPALITIES AND CORPORATIONS		
Andhra	.. .. 104	Shri K. Ramanadhan, Commissioner, Guntakal Municipality, Guntakal.
	105	Shri S. N. Reddy, Chairman, Kurnool Municipal Council, Kurnool.
	106	Shri Subharamaiah, Vice-Chairman, Municipal Council, Vijayawada.
	107	Shri G. Ranga Reddy, Municipal Commissioner, Visakhapatnam.
	108	Dr. M. Somanatha Sarma, Municipal Health Officer, Anakapalle.
	109	Shri C. Appi Reddi, Commissioner, Nellore Municipality, Nellore.
	110	Chairman, Municipal Council, Guntur.
	111	Commissioner, Rajahmundry.
	112	Municipal Health Officer, Gudivada.
Assam	.. .. 113	Vice-Chairman, Shillong Municipal Board, Shillong.
Bihar	.. .. 114	Chairman, Jamalpur Municipality, Jamalpur.
	115	Shri Abdul Haj, Vice-Chairman, Municipality, Darbhanga.
	116	Special Officer, Dinapur Nizamat Municipality, Dinapur.
	117	Municipal Commissioner's Office, Bhagalpur.
	118	Public Analyst, Birbhum.
Bombay	.. .. 119	President, Kalyan Borough Municipality, Kalyan.
	120	Dr. H. N. Vaidya, Medical Officer of Health, Sholapur Municipality, Sholapur.
	121	Surat Borough Municipality, Surat.
	122	President, Municipal Office, Godhra.
	123	President, Belgaum Borough Municipality, Belgaum.
	124	President, Borough Municipality, Bhusaval, Bhusaval.
	125	President, Municipal Borough, Hubli.
	126	Vice-President, Borough Municipality, Malegaon.
	127	President, Municipal Borough, Nasik.

APPENDIX IV—contd.

(1)	(2)	(3)
MUNICIPALITIES AND CORPORATIONS—contd.		
Bombay— <i>contd.</i>	128	President, Borough Municipality, Ahmednagar.
	129	President, Municipal Borough, Gadag.
	130	President, Municipality, Pandharpur.
	131	President, Kolhapur, Municipal Borough, Kolhapur.
	132	The Chief Officer, Navsari Borough Municipality Navsari.
	133	President, Borough Municipality, Nadiad.
	134	President, Municipal Borough, Chalisgaon.
	135	President, Municipal Borough, Dharwar.
	136	President, Thana Borough Municipality, Thana.
	137	Chairman, Nandurbar Municipal Office, Nandurbar.
	138	President, Satara City Borough Municipality, Satara.
	139	President, Municipal Borough, Jalgaon.
	140	President, Municipal Borough, Bijapur.
	141	Municipal Commissioner, Poona City.
	142	Municipal Commissioner, Ahmedabad Municipal Corporation, Ahmedabad.
Madhya Pradesh ..	143	Secretary, Municipal Committee, Murwara.
	144	President, Municipal Committee, Akola.
	145	Health Officer, Town Municipal Committee, Amravati.
	146	Secretary, Municipal Committee, Khamgaon.
	147	President, Municipal Committee, Kamptee.
	148	President, Municipal Committee, Yeotmal.
	149	Secretary, Municipal Committee, Damoh.
	150	President, Municipal Committee, Chanda.
	151	Shri V. S. Pandit, Mayor, Jabalpur Corporation, Jabalpur.
	152	Shri B. Mukerji, Health Officer, Corporation of the City of Nagpur, Nagpur.
Madras	153	Commissioner, Tanjore Municipality, Tanjore.
	154	Chairman, Municipal Council, Salem.

APPENDIX IV—contd.

(1)	(2)	(3)
<i>MUNICIPALITIES AND CORPORATIONS—contd.</i>		
<i>Madras—contd.</i>	155	Municipal Commissioner, Kumbakonam, District Tanjore.
	156	Municipal Health Officer, Municipal Office, Tirunelveli.
	157	Municipal Commissioner, Nandyal.
	158	Municipal Health Officer, Municipal Office, Vellore.
	159	Commissioner, Masulipatam Municipality, Masulipatam.
	160	Chairman, Municipal Council, Palayamkottai.
	161	Chairman, Municipal Council, Tiruvannamalai.
	162	Municipal Commissioner, Hospet.
	163	Chairman, Municipal Council, Pollachai.
	164	Municipal Commissioner, Chidambaram.
	165	Chairman, Municipal Office, Kottayam.
	166	Municipal Commissioner, Melapalayam.
	167	Commissioner, Ambur Municipality, Ambur.
	168	Chairman, Municipal Council, Tellicherry.
	169	Municipal Chairman, Cannanore.
	170	Commissioner, Aruppukkotai.
	171	Municipal Health Officer, Madurai.
	172	Commissioner, Municipal Office, Ernakulum.
	173	Municipal Health Officer, Srirangam.
	174	Municipal Commissioner, Palghat.
	175	Chairman, Municipal Council, Proddatur.
	176	Municipal Commissioner, Erode.
	177	Commissioner, Chirala Municipality, Chirala.
	178	Chairman, Municipal Office, Bodinayakanur.
	179	Commissioner Delegate, Tiruppur Municipality, Tiruppur.
	180	Municipal Health Officer, Pattukotai.
	181	Municipal Health Officer, Cuddalve.
	182	Commissioner Delegate, Rajapalayam.
	183	Chairman, Municipal Council, Gudiyattam.

APPENDIX IV—contd.

(1)	(2)	(3)
MUNICIPALITIES AND CORPORATIONS—contd.		
Madras—concl'd.	184	Commissioner, Ootacamund Municipality, Ootacamund.
	185	Chairman, Municipal Council, Karaikudi.
	186	Chairman, Municipal Council, Srivilliputtur.
	187	Commissioner, Coimbatore Municipality, Coimbatore.
	188	Municipal Commissioner, Bhimavaram.
	189	Commissioner, Mayuram Municipality, Mayuram.
	190	Commissioner, Municipal Council, Mattancherry.
	191	Commissioner, Kozhikode Municipality, Kozhikode.
	192	Public Analyst, Corporation of Madras, Madras.
Orissa	193	Office of the Puri Municipality, Puri.
Punjab	194	Executive Officer, Municipal Committee, Amritsar.
	195	Municipal Medical Officer of Health, Jullundur City.
	196	Secretary, Simla Municipality, Simla.
	197	President, Municipal Committee, Moga.
	198	Executive Officer, Municipal Committee, Bhatinda.
	199	Executive Officer, Municipal Committee, Sonapat.
	200	Executive Officer, Municipal Committee, Rewari.
	201	Executive Officer, Municipal Committee, Rajpura.
	202	Executive Officer, Municipal Committee, Panipat.
	203	President, Municipal Committee, Ludhiana.
Uttar Pradesh	204	Administrator, Municipal and Development Board, Lucknow.
	205	Administrator, Municipal Board, Banaras.
	206	Administrator, Municipal Board, Allahabad.
	207	Administrator, Municipal Board, Agra.
	208	President, Municipal Board, Khurja.
	209	Municipal Board, Naini Tal.
	210	President, Municipal Board, Ghaziabad.
	211	President, Municipal Board, Gorakhpur.

APPENDIX IV—contd.

(1)	(2)	(3)
MUNICIPALITIES AND CORPORATIONS—contd.		
Uttar Pradesh— <i>contd.</i>	212	President, Municipal Board, Bulandshahar.
	213	President, Municipal Board, Rampur.
	214	President, Municipal Board, Meerut.
	215	Secretary, Municipal Committee, Gonda.
	216	Executive Officer, Municipal Board, Aligarh.
	217	Municipal Board, Muzaffarnagar.
	218	President, Miraj City Municipality, Miraj.
	219	President, Municipal Board, Bijnor.
	220	President, Municipal Board, Man, District Azamgarh.
	221	President, Municipal Board, Budaun.
	222	President, Municipal Board, Basti.
	223	President, Municipal Board, Banda.
	224	President, Municipal Board, Hathras.
	225	President, Municipal Board, Hardwar.
	226	President, Municipal Board, Hapur.
West Bengal	227	Health Officer, Corporation of Calcutta, Calcutta.
	228	Chief Analyst, Corporation of Calcutta, Calcutta.
	229	Chairman, Bhatpara Municipality, P. O. Bhatpara, 24-Parganas.
	230	Administrator, Municipality, Chandernagore.
	231	Administrator, Garden Reach Municipality.
	232	Chairman, Bhadreswar Municipality, Bhadreswar.
	233	Chairman, North Barrackpore Municipality, Barrackpore.
	234	Administrator, Barrackpore Municipality, Barrackpore.
	235	Chairman, Krishnagar Municipality, Krishnagar.
	236	Chairman, Burdwan Municipality, Burdwan.
Hyderabad	237	Chairman, Champdany Municipality, Champdany.
	238	Administrator, Howrah Municipality, Howrah.
	239	Municipal Commissioner, Serampore.
	240	Commissioner, Municipal Corporation, Hyderabad.

APPENDIX IV—contd.

(1)	(2)	(3)
<i>MUNICIPALITIES AND CORPORATIONS—concl'd.</i>		
Hyderabad— <i>cont'd.</i>	241	Chairman, Panihati Municipality, Panihati.
	242	President, City Municipality, Jalna.
Madhya Bharat	.. 243	Commissioner, Municipal Committee, Ujjain.
	244	President, Greater Municipality, Ratlam.
Mysore	.. 245	Municipal Commissioner, City Municipal Council, Mysore.
Rajasthan	.. 246	Chairman, Municipal Board, Ganganagar.
	247	Executive Officer, Municipal Board, Tonk.
	248	President, City Corporation, Udaipur.
	249	Executive Officer, Municipal Board, Kotah.
	250	Administrator, Municipal Council, Jaipur.
	251	President, Municipal Board, Bikaner.
Saurashtra	.. 252	Chief Officer, Morvi City Municipality, Morvi.
	253	President, Borough Municipality, Jamnagar.
	254	President, Junagarh Municipality, Junagarh.
	255	Chief Officer, Veraval Municipality, Veraval.
	256	Chief Officer, Borough Municipality, Bhavnagar.
	257	Porbandar Municipality, Porbandar.
Travancore-Cochin	.. 258	Mayor, Corporation of Trivandrum, Trivandrum.
	259	Chairman, Municipal Office, Trichur.
	260	Chairman, Municipal Office, Quilon.
Bhopal	.. 261	Health Officer, Municipal Board, Bhopal.
Delhi	.. 262	Medical Officer of Health, Delhi Municipality, Delhi.
	263	Secretary, Shahdara Municipality, Delhi-Shahdara.
DISTRICT BOARDS		
Andhra	.. 264	Shri P. C. James, M. A., Collector and Special Officer, District Board, Srikakulam.
	265	Shri D. V. G. Rama Rao, Special Officer, District Board, Anantapur.
	266	Shri J. P. L. Gwynn, Collector and Special Officer, District Board, Visakhapatnam.
	267	Special Officer, Kurnool District Board, Kurnool.
	268	Special Officer, District Board, East Godavari.

APPENDIX IV—contd.

(1)	(2)	(3)
<i>DISTRICT BOARDS—contd.</i>		
Assam	.. 269	Shri K. Bhattacharjee, Chairman, Karimganj Local Board, Karimganj.
	270	Chairman, Dibrugarh Local Board, Dibrugarh.
	271	Chairman, Loal Board, North Lakhimpur.
	272	Shri R. K. Srivastava, Sub-Divisional Officer, Hailakandi.
Bihar	.. 273	Chairman, Shahabad District Board, Arrah.
	274	Chairman, Ranchi District Board, Ranchi.
	275	Chairman, District Board, Champaran.
	276	Chairman, District Board, Saharsa.
	277	Vice-Chairman, District Board, Singhbhum.
	278	Chairman, District Board, Monghyr.
Bombay	.. 279	Collector, Ratnagiri.
	280	Collector and Chairman, District Development Board, Dangs, Ahwa.
	281	Vice-President, District School Board, Thana.
	282	Collector, District Board, Jalgaon.
	283	President, District Local Board, Broach.
	284	Office of the Cantonment Board, Poona.
	285	Collector's Office, Amreli.
	286	Collector, Sabarkantha District, Himatnagar.
	287	Collector Jalgaon, East Khandesh.
	288	President, District Board, Kolahpur.
	289	President, District Local Board, Nasik.
Madras	.. 290	President, Chingleput District Board, Saidapet, Madras-15.
	291	President, District Board, Tanjore.
	292	President, Malabar District Board, Kozhikode.
	293	President, District Board, the Nilgiris, Ootacamund.
	294	Executive Officer, Tenkasi Panchayat, Tenkasi.
	295	Chairman, District Board, Kanara.
	296	Special Officer, District Board, Cuddapah.
	297	Special Officer, District Board, Nellore.

APPENDIX IV—contd.

(1)	(2)	(3)
		DISTRICT BOARDS— <i>contd.</i>
Madras— <i>contd.</i>	298	President, South Kanara District Board, Mangalore.
	299	President, Ramanathapuram District Board, Madurai.
	300	President, Madurai District Board, Madurai.
	301	President, District Board, Tiruchirappalli.
	302	Special Officer, District Board, Chittoor.
Orissa	303	Special Officer, Koraput District Board, Jeypore.
	304	Sub-Divisional Officer, Khurda (Orissa).
	305	Special Officer, District Board, Cuttack.
	306	Special Officer, District Board, Balasore.
	307	Special Officer, District Board, Ganjam.
Punjab	308	Secretary, District Board, Amritsar.
	309	Chairman, District Board, Ferozepur.
	310	Cantonment Executive Officer, Cantonment Board, Ferozepur.
	311	Chairman, District Board, Hissar.
	312	Secretary, District Board, Jullundur.
	313	Chairman, District Board, Hoshiarpur.
	314	Chairman, District Board, Gurgaon.
	315	Chairman, District Board, Ludhiana.
	316	Secretary, District Board, Gurdaspur.
	317	Chairman, District Board, Kangra, Dharamshala.
Uttar Pradesh	318	President, District Board, Jaunpur.
	319	Executive Officer, Cantonment Board, Lucknow.
	320	President, District Board, Rae Bareilly.
	321	President, District Board, Azamgarh.
	322	President, District Board, Lucknow.
	323	Officer-in-Charge, District Board, Mirzapur.
	324	President, District Board, Gonda.
	325	President, District Board, Jhansi.
	326	Municipal Board, Moradabad.
	327	President, District Board, Banaras.
	328	President, District Board, Kheri.

APPENDIX IV—contd.

(1)	(2)	(3)
<i>DISTRICT BOARDS—contd.</i>		
Uttar Pradesh— <i>contd.</i>	329	President, District Board, Mathura.
	330	President, District Board, Sitapur.
	331	President, District Board, Agra.
	332	President, District Board, Shahjahanpur.
	333	President, District Board, Meerut.
	334	President, District Board, Mirzapur.
	335	President, District Board, Deoria.
	336	President, District Board, Bijnor.
	337	President, District Board, Etah.
	338	President, District Board, Faizabad.
	339	President, District Board, Jalaun.
	340	President, District Board, Garhwal.
West Bengal	341	Chairman, District Board, Hoogly.
	342	Vice-Chairman, District Board, Darjeeling.
	343	Chairman, Murshidabad District Board, Murshidabad.
	344	Vice-Chairman, District Board, Burdwan.
	345	Chairman, District Board, Birbhum.
	346	Chairman, District Board, 24-Parganas.
	347	Chairman, District Board, Dinajpur.
	348	Chairman, District Board, Nadia.
Hyderabad	349	President, District Board, Raichur.
Madhya Bharat	350	Cantonment Executive Officer, Cantonment Board, Mhow.
	351	District Board, Indore.
Rajasthan	352	Chairman, District Board, Ganganagar.
	353	Chairman, District Board, Bharatpur.
	354	Chairman, District Board, Chura.
Ajmer	355	Chairman, District Board, Ajmer.
Coorg	356	District Board, Coorg.
Delhi	357	President, Cantonment Board, Delhi.
	358	Chairman, District Board, Delhi.

APPENDIX IV—contd.

(1)	(2)	(3)
DISTRICT BOARDS— <i>concl'd.</i>		
Himachal Pradesh	.. 359	District Board, Sirmur.
Manipur	.. 360	President, District Board, Manipur.
MEDICAL COLLEGES, MEDICAL RESEARCH INSTITUTIONS, ETC.		
Andhra	.. 361	Dr. D. Jagannadha Reddy, Principal, Guntur Medical College, Guntur.
	362	Dr. M. Mallikarjuna Rao, Retired Professor, College of Indigenous Medicine and Vice-President of Central Board, Emani, District Guntur.
	363	Dr. D. Govinda Reddy, Principal, Andhra Medical College, Visakhapatnam.
	364	Dr. Gurraju, Principal, Homeopathic Medical College, Gudivada, District Krishna.
Assam	.. 365	Principal, Assam Medical College, Dibrugarh.
	366	Dr. R. L. Canville, Director, Pasteur Institute, Shillong.
	367	Officer-in-Charge, Vaccine Depot, Shillong.
Bihar	.. 368	The Principal, P. W. Medical College, Patna.
	369	Shri H. R. Kapoor, Principal, Bihar Veterinary College, Patna.
Bombay	.. 370	The Dean, Topiwala National Medical College, Bombay-8.
	371	Shri F. S. Khambata, Principal, Bombay Veterinary College, Parel, Bombay-12.
	372	The Principal, B. J. Medical College, Ahmedabad.
	373	Dr. V. R. Khanolkar, Director, Indian Cancer Research Centre, Parel, Bombay-12.
	374	Shri R. S. Rao, Assistant Director of Public Health, I/c Vaccine Institute, Belgaum.
	375	The Director, Haffkine Institute, Bombay.
	376	Shri L. D. Dhawale, Honorary Chief Medical Officer and Honorary Physician, Office of the Homeopathic Hospital, Government of Bombay, 103, Sion, Bombay-22.
	377	The Director, Virus Research Centre, Poona.
	378	The Dean, Seth G. S. Medical College, Parel, Bombay-12.
	379	The Principal, Grant Medical College, Bombay-8.
	380	The Principal, Medical College, Baroda.

APPENDIX IV—contd.

(1)	(2)	(3)
MEDICAL COLLEGES, MEDICAL RESEARCH INSTITUTIONS, ETC.— <i>contd.</i>		
Bombay— <i>contd.</i>	381	Chief Chemist, Public Health Laboratory, Baroda.
	382	The Principal, B. J. Medical College, Poona.
	383	Public Analyst, Greater Bombay, Bombay.
Madhya Pradesh	384	The Dean, Medical College and Hospital, Nagpur.
	385	Shri V. B. Joshi, Head of the Department of Ayurvedic Research, Nagpur University, Nagpur.
	386	Principal, Madhya Pradesh Veterinary College, Jabalpur.
	387	Director, Madhya Pradesh, Vaccine Institute, Nagpur.
Madras	388	The Director, Pasteur Institute, Coonoor.
	389	Government Analyst, Guindy, Madras.
	390	Director, King Institute, Guindy, Madras.
	391	Dr. V. Narayanswami, Lecturer in Ayurveda, Government College of Indigenous Medicine, Madras.
	392	The Director, Nutrition Research Laboratories, Indian Council of Medical Research, Coonoor.
	393	Dean, Stanley Medical College, Madras.
	394	Principal, Christian Medical College, Vellore, North Arcot.
	395	Principal, The Kasturba Medical College, Mangalore.
	396	Principal, Madurai Medical College, Madurai.
	397	Principal, Madras Veterinary College, Madras.
	398	Principal, Madras Medical College, Madras.
Orissa	399	Principal, Sriram Chandra Bhanj Medical College, Cuttack.
Punjab	400	Director, Central Research Institute, Punjab, Kasauli.
	401	Dean, Hygiene and Vaccine Institute, Punjab, Amritsar.
	402	Principal, Christian Medical College, Ludhiana.
	403	Principal, Medical College, Amritsar.
Uttar Pradesh	404	Principal, U. P. College of Veterinary Science and Animal Husbandry, Mathura.
	405	Principal, K. G. Medical College, Lucknow.

APPENDIX IV—contd.

(1)	(2)	(3)
MEDICAL COLLEGES, MEDICAL RESEARCH INSTITUTIONS, ETC.— <i>concl'd.</i>		
Uttar Pradesh— <i>cont'd.</i>	406	Director, Indian Veterinary Research Institute, Izatnagar, Bareilly.
	407	Superintendent, State Vaccine Institute, Patwada Nagar, Naini Tal.
	408	Director, Central Drug Research Institute, Lucknow.
West Bengal	409	Principal, Bengal Veterinary College, Calcutta.
	410	Principal, Calcutta National Medical Institute, Gorachand Road, Calcutta.
	411	Principal, Medical College, Calcutta.
	412	Director, School of Tropical Medicine, Calcutta.
	413	Superintendent, Vaccine Institute, Calcutta.
	414	Director, All-India Institute of Hygiene and Public Health, Calcutta.
Hyderabad	415	The Assistant Director of Public Health, Central Laboratories, Hyderabad.
	416	Principal, Osmania Medical College, Hyderabad.
Madhya Bharat ..	417	Principal, Mahatma Gandhi Memorial Medical College, Indore.
Mysore	418	Assistant Malariologist, Field Station, Saklaspur, Bangalore.
	419	Superintendent, Vaccine Institute, Bangalore.
Rajasthan	420	Principal, S. M. S. Medical College and Controller, Attached Hospitals, Jaipur.
	421	Principal, Rajasthan College of Veterinary Science and Animal Husbandry, Bikaner.
Travancore-Cochin ..	422	Principal, Medical College, Trivandrum.
	423	Superintendent, Public Health Laboratory, Trivandrum.
	424	Director of Indigenous Medicine, Trivandrum.
	425	Public Analyst, University of Travancore, Trivandrum.
Delhi	426	Director, Malaria Institute of India, Delhi.
	427	Principal, Lady Hardinge Medical College, New Delhi.
SOCIETIES FOR THE PREVENTION OF CRUELTY TO ANIMALS		
Bihar	428	Mrs. D. Howieson, Honorary Secretary and Treasurer, Bihar State S. P. C. A., Dhanbad Branch, Jealgor P. O., District Manbhum.

APPENDIX IV—contd.

(1)	(2)	(3)
SOCIETIES FOR THE PREVENTION OF CRUELTY TO ANIMALS— <i>contd.</i>		
Bihar— <i>contd.</i>	429	Shri D. N. Singh, Honorary Secretary, S. P. C. A., Muzaffarpur.
	430	Shri Dharam Lal Singh, Honorary Secretary, State S. P. C. A., Patna.
Bombay	431	Shri P. D. Havewalla, Secretary and Treasurer, The Bombay S. P. C. A. and the Bai Sakarbai Dinshaw Petit Hospital for Animals, Government Gate Road, Parel, Bombay-12.
	432	Shri A. V. Rapads, Honorary Secretary, Poona S. P. C. A., Poona.
	433	Shri Dayabhai A. Patel, Honorary Secretary, S. P. C. A., Ahmedabad.
	434	Khan Bhadur Dinshaw K. Irani, Honorary Secretary, S. P. C. A., Ahmednagar.
	435	Honorary Treasurer, Deolali S. P. C. A., Deolali.
	436	S. P. C. A., Kirkee, Poona Cantt.
Madhya Pradesh ..	437	Honorary Secretary, S. P. C. A., Nagpur.
Madras	438	Honorary Secretary, S. P. C. A., Madras.
	439	Honorary Secretary, S. P. C. A., Coimbatore.
	440	Honorary Secretary, S. P. C. A., Coonoor.
	441	Honorary Secretary, S. P. C. A., Tiruchirapalli.
	442	Honorary Secretary, S. P. C. A., North Arcot Br., Vellore.
	443	Honorary Secretary, Malabar S. P. C. A., Kozhikode.
	444	President, S. P. C. A., Tanjore.
	445	Honorary Secretary, S. P. C. A., Cannanore, N. Malabar.
Orissa	446	Honorary Secretary, S. P. C. A., Orissa, Cuttack.
Punjab	447	Honorary Secretary, S. P. C. A., Ferozepur.
	448	Shri Barkat Ram Chopra, Honorary Secretary, S. P. C. A., Jullundur.
	449	Mrs. Atkinson, Honorary Secretary, S. P. C. A., Simla.
	450	Honorary Secretary, S. P. C. A., Amritsar.
Uttar Pradesh ..	451	Honorary Secretary, S. P. C. A., Kanpur.
	452	Honorary Secretary, S. P. C. A., Lucknow.

APPENDIX IV—contd.

(1)	(2)	(3)
SOCIETIES FOR THE PREVENTION OF CRUELTY TO ANIMALS—concl'd.		
Uttar Pradesh— <i>contd.</i>	453	Honorary Secretary, S. P. C. A., Naini Tal.
	454	Honorary Secretary, Burjor Nariman, S. P. C. A., Bareilly.
	455	Honorary Secretary, S. P. C. A., Dehra Dun.
West Bengal	456	Secretary, Calcutta S. P. C. A., 276, Bow Bazar Street, Calcutta.
	457	Mr. L. W. Newbond, All-India Society for the Prevention of Cruelty to Animals, Calcutta.
	458	Honorary Secretary-General, Darjeeling S. P. C. A., Darjeeling.
Hyderabad	459	Honorary Secretary, S. P. C. A., Hyderabad.
Mysore	460	Honorary Secretary, Mysore S. P. C. A., Mysore.
Delhi	461	Honorary Joint Secretary, Delhi S. P. C. A., Kudsia Road, Delhi.
GAUSHALAS AND PINJRAPOLES		
Binar	462	Shri Dharam Lal Singh, Honorary Secretary, Bihar State Gaushalas and Pinjrapoles Federation, Sadaquat Ashram, Patna.
Bombay	463	The Manager, Ahmedabad Pinjrapole Sanstha, Ahmedabad.
	464	Shri P. A. Mhatre, Honorary Secretary, The Bombay State Federation of Gaushalas and Pinjrapoles, 149, Shroff Bazar, Bombay.
	465	Shri Bharatvarshiya Gopal Gorakshak Mandal, Bhaleshwar.
	466	Honorary Secretary, Shri Pinjrapole Sanstha, Shahapur, Kolhapur.
	467	Honorary Secretary, Guledgudd Goshala and Pinjrapole, Guledgudd.
	468	Pinjrapole Sanstha, Malegaon.
	469	Secretary, Gopalak Sangh, Sholapur.
	470	Shri T. P. Gandhi, President, Amreli Goshala, Amreli.
	471	President, Goshala, Haliyal.
	472	Secretary, Bombay Pinjrapole, Bombay.
	473	Secretary, Hubli Pinjrapole, Hubli.
	474	Shri Deesa Mahajan Pinjrapole, Juna Deesa.
	475	Chairman, Nandurbar Pinjrapole, Nandurbar.

APPENDIX IV—contd.

(1)	(2)	(3)
GAUSHALAS AND PINJRAPOLES—concd.		
Bombay— <i>contd.</i>	.. 476	President, The Vypari Sangh, Gosamvardhan Sanstha, Nipani, District Belgaum.
	477	Manager, Pinjrapole Institute, Dhulia.
	478	Secretary, Shri Surat Pinjrapole, Surat.
	479	Shri Nasik Panchvati Pinjrapole, Nasik.
	480	Mansa Mahajan Pinjrapole, Mansa.
	481	Shri Mehsana Pinjrapole Sanstha, Mehsana.
	482	President, Rama Krishna Gorakshan Sanstha, Bhusawal.
West Bengal ..	.. 483	Honorary General Secretary, Calcutta Pinjrapole Society, Calcutta.
Hyderabad ..	.. 484	Shri Latur Goraksha Sanstha, Latur, Osmanabad.
Mysore ..	.. 485	Honorary Secretary, Mysore Pinjrapole Society, Mysore.
	486	Honorary Secretary, Goseva Sangh, Ashoka Road,
Rajasthan ..	.. 487	President, Pinjrapole Committee, Visnagar.
	488	President, Rajasthan Pashu Raksha Sammelan, Nimbahera.
Saurashtra ..	.. 489	Secretary, Wadhwan City Pinjrapole, Wadhwan City.
	490	Shree Bhavanagar Pinjrapole, Bhavnagar.
	491	Secretary, Jamnagar Pinjrapole, Jamnagar.
	492	Shree Mahuva Gaurakshak Sabha, Mahuva.
	493	The Munim, Limbdi Pinjrapole, Limbdi.
Kutch ..	.. 494	Honorary Secretary, Bhuj Pinjrapole, Bhuj.
	495	Honorary Secretary, Mandvi Pinjrapole, Mandvi, Kutch.
HUMANITARIAN ORGANIZATIONS		
Andhra ..	.. 496	Shri J. Satyanarayana, Organiser, Bombay Humanitarian League, Andhra, P. O. Vizianagaram, District Visakhapatnam.
	497	The Humanitarian League, Adoni.
	498	Shri K. V. Rao, Secretary, Agastya Theosophical Lodge, Anakapalle.
	499	President, Village Congress Committee and Member, Andhra State Cattle Welfare Association, Nivagam.

APPENDIX IV—contd.

(1)	(2)	(3)
HUMANITARIAN ORGANISATIONS—contd.		
Andhra—contd.	.. 500	Secretary, Theosophical Lodge, Tuni, District East Godavari.
Bihar	.. 501	Shri Sita Ram Dass, Honorary Secretary, Youth Welfare Association, Camp P. O. Mahamada (via Pusa), District Darbhanga.
	502	Shri Radha Kant Sharma, President, The Bihar Theosophical Federation, Annie Besant Road, Patna.
	503	Jain Bala Vishram, Devashram, Arrah.
Bombay	.. 504	Shri R. V. Patel, Manager, Shri Govardhan Sanstha, Chopda, East Khandesh.
	505	Mrs. Mehra R. Vakil, Joint Secretary, All-India Animal Welfare Association, 149, Shroff Bazar, Bombay-2.
	506	Shri H. D. Zaveri, Honorary Secretary, The Bombay Humanitarian League, 149, Shroff Bazar, Bombay-2.
	507	Shri Mohanlal Harilal Parikh, President, Shri Viramgam Khoda Dhor Mahajan, Viramgam.
	508	The Manager, Himsavirodhak Sangh, Ahmedabad.
	509	Shri Jivdaya Prabodhak Mandal, Ajodhar, Bombay.
	510	President, Unity Youth Lodge, T. S. Lamington Road, Bombay.
	511	Shri M. S. Sirdar, Honorary Secretary, The Sholapur and District Animal Welfare Society, Sholapur.
	512	Honorary Secretary, Daya Pracharini Mahasabha, Ahmedabad.
Madhya Pradesh	.. 513	President, Central Province and Berar Humanitarian Association, Jabalpur.
Madras	.. 514	Secretary, Servants of India Society, Royapettah, Madras.
	515	Shri N. Sri Ram, President, The Theosophical Society, Adyar, Madras-20.
	516	Mr. Peter Hoffman, President, Besant Lodge, Adyar, Madras-20.
	517	The South Indian Humanitarian League, 132 Mint St., Madras-1.
	518	General Secretary, Young Men's Cresant Society, Triplicane High Road, Madras.
	519	President, Divine Life Society, 39, Linghi Chetty Street, Madras..

APPENDIX IV—contd.

(1)	(2)	(3)
	HUMANITARIAN ORGANIZATIONS— <i>contd.</i>	
Madras— <i>contd.</i>	520	Madhan Thiruneri Karagam, Garden Street, Madras.
	521	President, Adyar Lodge of the Theosophical Society, Madras-20.
	522	Secretary, Cow Protection, Madras.
	523	Secretary, Ellore Gosamrakshana Samithi, Ellore.
Uttar Pradesh ..	524	Honorary Director, The World Jain Mission, Etah.
	525	Swami Sivananda, The Yoga Vedanta Forest University, Rishikesh, Hardwar.
	526	Arya Prathinidhi Sabha, Agra.
	527	The Theosophical Society, Banaras.
West Bengal ..	528	Honorary Secretary, The All-Lovers of Animals Society, Kyd Street, Calcutta.
	529	Joint Secretary, Maha Bodhi Society of India, Bankim Chatterjee Street, Calcutta.
	530	Chairman, Benipukar Seva Samity, 25, Jannagore Road, Calcutta.
Hyderabad ..	531	The Dean, Humanitarian League, B. G. Station Road, Hyderabad.
	532	The Secretary, Shri Sanatan Dharam Sabha, Begum Bazar, Hyderabad Dn.
	533	Chairman, Mahavir Jain Nawayuwak Mandal, Gautampur.
	534	Honorary Secretary, Shri Jiva Raksha Gyana Parcharak Mandal, Hyderabad.
	535	Honorary Secretary, Shri Gujrati Pragati Samaj, Sultan Bazar, Hyderabad.
Jammu and Kashmir ..	536	Honorary General Secretary, Kashmir Animal Welfare League, Srinagar.
Madhya Bharat ..	537	Shri Chambal Bharti, Ujjain.
Mysore ..	538	President, Society for the Promotion of Kindness to Animals, Lalbagh Road, Bangalore.
	539	Honorary Secretary, Society for the Promotion of Kindness to Animals, Mysore.
	540	Honorary Secretary, The Kolar Gold Field Humanitarian League, Station Road, Robertsonpet, P. O. Kolar Gold Field.
	541	The Secretary, All-India Cattle Protection Conference, Kolar.

APPENDIX IV—contd.

(1)	(2)	(3)
HUMANITARIAN ORGANIZATIONS— <i>concl'd.</i>		
Saurashtra ..	.. 542	Shri Hargovind Kaka, Organizer Saurashtra Jiv Daya Mandal, Rajkot.
	543	Limbdi Mahajan, Limbdi.
Ajmer ..	.. 544	Shri K. L. Jain, Secretary, Shree Jain Digamber Jain Yuwak Mandal, Beawar.
Delhi ..	.. 545	Shri S. P. Jain, Nasim, Secretary-General, The International Cultural Forum and International Animal Charter Committee, 2653, Roshanpura, Naisarak, Delhi.
	546	Ahimsa Prachark Jain Samiti, Red Temple (Near Red Fort), Delhi.
PRACTITIONERS OF ALLOPATHY, HOMEOPATHY, AYURVEDA, ETC.		
Andhra ..	.. 547	Ayurveda-mahopadhyaya Pt. Ramamijaswami T. P., Ramathirtham, District Visakhapatnam.
Bombay ..	.. 548	Pandit Shiv Sharma, Baharestan, Bomanji Petit Road, Cumbala Hill, Bombay.
	549	Dr. V. V. Athalye Saraswati Sadan, Satara, Bombay.
Madras ..	.. 550	Col. K. V. Ramana Rao, I. M. S., 11, Cresant Road, Madras.
	551	Dr. S. Raman, Nask Clinics, 12-A Gopalkrishnaiyer Road, T. Nagar, Madras.
	552	Shri S. Viswanathan Sarma, Principal, Venkateramana Ayurvedic College & Dispensary, Mylapore, Madras.
	553	Dr. Mir Fida Hussain, Lecturer, GRJ (Chief) Unani, Madras.
	554	Dr. K. Kasinathan, Dr. C. N. Kuppuswami and Dr. C. S. Uthamarayan, Lecturers (Siddha), College of Indigenous Medicine, Madras.
	555	Dr. A. Lakshmipathi, 43, Harris Road, Madras.
	556	Dr. A. Raghava Rao, Teppakulam P. O., Trichy.
	557	Shri G. Srinivasa Aiyangar, Research Ayurvedist, Tanjore.
	558	Dr. I. V. Sarma, Lecturer (Grade I), College of Indigenous Medicine, Madras.
	559	Dr. Visweswara Shastri, Vice-Principal, College of Indigenous Medicine, Madras.
	560	Dr. S. Kesava Pai, Madho Bagh, Kadri Road, Mangalore.
	561	Faiz-E-am-Pharmacy, 18, Khana Bagh Street, Madras.

APPENDIX IV—contd.

(1)	(2)	(3)
PRACTITIONERS		OF ALLOPATHY, HOMEOPATHY, AYURVEDA, ETC.— <i>contd.</i>
Uttar Pradesh	562	Kaviraj Pratap Singh, Keshri Kuteer, Banaras.
West Bengal	563	Dr. J. Ghosh, 9, Satyen Datta Road, Calcutta.
	564	Dr. H. K. Busu, 67, Dharmtalah Street, Calcutta.
Saurashtra	565	Shri G. D. Saraswata and Shri R. R. Pathak, Senior Physicians, Central Institute of Research in Indigenous Systems of Medicine, Jamnagar.
Travancore-Cochin ..	566	Shri M. N. Keshava Pillai, Director of Indigenous Medicine, Travancore State, Trivandrum.
Delhi	567	Kaviraj Ashutosh Majumdar, 90/8, Connaught Circus, New Delhi.
INDIVIDUALS		
Andhra	568	Dr. Y. Suryanarayana Rao, Vijayawada.
Bihar	569	Shri Justice Raj Kishore Prasad, Judge, Patna High Court, Shashi Sadan, Patna.
Bombay	570	Mrs. M. R. Dhalla, 'Russi Villa', 55, Peddar Road, Bombay-26.
	571	Shri Homi, N. Driver, Auto-mobile Engineer and Military Contractor, 24/8, East Street, Poona.
	572	Sadhu T. L. Vaswani, 10, Connaught Road, Poona.
	573	Shri Keshavlal Laxmichand Mehta, Lalji Poonsi's Bangalow, Derasur Lane, Bombay.
	574	Mohanlal K. Shah, Ravindra Nivas, Andrews Road, Santa Cruz, Bombay.
	575	Mohanlal J. Kothary, Gandhi Road, Ahmedabad.
	576	Shri F. A. Bode, Gulistan, Kingsway, Dadar, Bombay.
	577	Swami Kuvalayananda, Director, Kaivalyadhama Ashrama, Lonavala.
	578	Shri Krishan Lal M. Jhaveri, Girgaum Post, Bombay.
Madhya Pradesh ..	580	Shri M. B. Niyogi, Amba Vihar, Ajni, Nagpur.
	581	Shri S. Satchidanandan Pillai, Lloyds Road, Madras.
	582	Dr. (Mrs.) Muthulakshmi Reddi, Adyar, Madras-20.
Madras	583	Shri C. P. Ramaswami Ayer, Delisie, Ootacamund.

APPENDIX IV—contd.

(1)	(2)	(3)
INDIVIDUALS—contd.		
Madras—contd.	584	Shri T. S. Sripal, Organiser and Lecturer, South Indian Humanitarian League, 132 Mint Street, Madras.
	585	Mrs. Sarasavani Vaidyanath, Feru Hill Road, Kodaikanal.
	586	Dewan Bahadur K. S. Ramaswami Sastri, District and Sessions Judge (Retired), Royapettah, Madras.
	587	Sister Lalitha, "Aruna", Kotagiri, the Nilgiris, Madras.
	588	Shri T. M. Narayanaswami Iyer, Gopala Oushadhalayam, Shiyali.
	589	Shri C. Murugesan, 10, Krishnappa Naicken Agraharam Street, Madras.
	590	Mrs. Sophia Wadia, Madras.
	591	His Holiness Sri Swami Nemi Sagara Varniji Maharaj Sri Siddhavana Surukula, P. O. Ujire S. Kanara.
	592	Swasti Shree Parshwakeerthi Swamiji, Jain Mut, Moodbidri, S. Kanara.
	593	Shri C. Murugaian, 30, Aremathuachari St., Triplicane, Madras.
	594	Shri Anantha Ramasubrahmanyam, 43, St. Mary Road, Madras-18.
	595	Rao Bahadur A. Chakravarti, 33, Pudapet Garden Road, Madras.
	596	Srila Sri His Holiness Deivasikhamani Arunachala Desika Paramacharya Swamigal, Koonnakudi, District Ramnad.
	597	Shri K. Seshadri, 13, Abraham Mudali St., Mylapore, Madras.
	598	His Holiness Kasivasi Arulnadi Tamhiran AVL, Tirupanandal.
	599	Vayaskara Aryan Moss, Shorma Road, Trichur.
	600	M/s Jammi Venkataramanayya & Sons, 48/1 Royapettah High Road, Mylapore, Madras.
	601	Shri D. M. Agarwala, Sowcarpet, Madras.
	602	Swasti Sriman Devamanya Devasri Methahinava Lakshmisena Buttaraka Bhattacharyavaryar Swamiar, Sri Jinkanchi Mekhittamoor, South India.
	603	Shri Somasundara Thamharian, Dharmapuram Adhinam Rajan Kattalai Office, Tiruvarur.
	604	Shri H. O. Padhe, Retired Engineer, Pailakudi.
	605	Citizens of Mayuram.

APPENDIX IV—contd.

(1)	(2)	(3)
INDIVIDUALS—contd.		
Orissa ..	606	Shri B. C. Patnaik, Town Hall Road, Cuttack.
Uttar Pradesh ..	607	Mrs. Rivers Wrights, Alma Cottage, Naini Tal.
	608	Shri Suresh Chandra, 362, District Jail, Sitapur.
West Bengal ..	609	Dr. K. M. Khan, Khan Wild Animal Farm, Calcutta.
	610	Shri Rajkumar S. Preston, 6, Ballygunge Park, Calcutta.
	611	Shri K. D. Jalan, Calcutta.
	612	Secretary, Bharat Chamber of Commerce, Calcutta.
Hyderabad ..	613	Mrs. Premrata Gupta, "Prakashalaya, Jubilee" Hills, Hyderabad.
	614	Shri M. Hanumantha Rao, Andhra Kutir, Hyderabad.
Jammu and Kashmir ..	615	Shri Gopi Nath Dhar, Kashmir Humantarian League, Srinagar.
Madhya Bharat ..	616	Shri K. N. Bhandari, Nandlal Bhandari Mills Ltd., Indore.
Saurashtra ..	617	Shri Manilal H. Udani, President, Saurashtra Jiva Daya Mandal, Udani Villa, Rajkot.
	618	Shri Surchand K. Shah, Shrishakti Gate, Dhrangadhra.
Travancore-Cochin ..	619	Shri K. M. Pillai, R. V. Puram, Nagercoil.
Ajmer ..	620	Shri N. Sivakamu, Kotah Sanatorium Annexe, Mayo, Ajmer.
Delhi ..	621	Shri Dewan Chand Ahimsak, 19/20 Old Fort, Delhi.
	622	Smt. Rameshwari Nehru, Ministry of Rehabilitation, New Delhi.

B. FOREIGN COUNTRIES

Name of the country	Sl. No.	Organisation/Individual
England ..	1	Dr. P. D. Kapur, Hony. Secretary, India Society for the Protection of Animals, 40, Lullington Garth, Woodside Park, London, No. 12.
	2	Mr. Arthur W. Mossa, M. B. E., A. C. I. S., Chief Secretary, Royal Society for the Prevention of Cruelty to Animals, 105, Jermyn Street, London, S.W.1.

APPENDIX IV—contd.

(1)	(2)	(3)
England— <i>contd.</i>	3	Miss. L. Loat, Secretary, The National Anti-Vaccination League, 26/28 Warwick Way, London, S. W. I.
	4	Mr. N. Hosali, Organiser, Society for Protection of Animals in N. Africa, 15, Buckingham Gate, London, S. W. I.
	5	Miss Margaret E. Ford, Hony. Secretary, World League Against Vivisection and for the Protection of Animals, 42, Aberdeen Road, Highbury, London No. 5.
	6	Mr. Basil P. Howell, 13, St. Andrew's Park Road, South Borough, Tunbridge Wells.
	7	Mr. Gerald Curtler, President, The United Humanitarian League, 5 Hill Avenue, Worcester.
	8	Mr. Alfred Brisco, Organising Secretary, The National Equine (and smaller animals) Defence League, Blackwell, Carlisle.
	9	Mr. G. Dobson, The Minister House, Upminster, Essex.
	10	Mrs. D. Worthy Green, Airways Downton, Salisbury, Wilts.
	11	Miss Mary Free, 26, Maybrick Road, Hornchurch, Essex.
	12	Mrs. Y. Scott, Secretary, The British Federation of Animal Welfare Societies, Room "C" Denison House, 296, Vauxhall Bridge Road, London, S. W. L.
	13	Mr. Edmund T. MacMichael, Director of Performing and Captive Animals' Defence League, 11 Buckingham Street, Adelphi, London. W. C. 2.
	14	Mrs. Helen Q. Homles Gore, 10, De Vere Gardens, Kensington, London, W. 8.
	15	Sir Frederick Bowman, President and Founder, Animal Service Association, Liverpool-1.
	16	Mr. Hanworth Walker, General Secy., International Vegetarian Union, 101 Harestone Hill, Caterham, Surrey, England.
	17	Madame B. Elles—Private, Secretary, Bureau International Humanitaire Zoophile, International Humanitarian Bureau, 15, St. Jame's Place, London, S. W. I.
	18	Mr. J. K. Newth, 6, Essex Villas, Kensington, London W. 8.
	19	Mrs. Piers Legh, 14, Bute Gardens, London W. 6.

APPENDIX IV—contd.

(1)	(2)	(3)
England— <i>contd.</i>	20	Miss F. Barkar, Secretary International Cultural Forum, U. K. Branch, 127, Nevil Avenue, HOVE, 4, Sussex, England.
	21	Miss Mary Harrison, Sunnyside, Redlynch, Salisbury, England.
Scotland	22	Mr. Harvey Metcfe, Secretary, Scottish Society for the Prevention of Vivisection, 10, Queensferry Street, Edinburgh-2.
	23	Mrs. Betty B. Eilers, Animals Crusaders of Irizona, Inc., Route 2, Box 499, Scottsdale, Arizona.
Ireland	24	Mr. Rosmand Jacob, Hony., Secretary, The Irish Union for Abolition of Vivisection, 17, Charlerille Road, Dublin.
	25	Miss Agg Brown, Hony., Secretary, Ulster S. P. C. A. (Inc.) 16, Montgomery Street, Belfast, Northern Ireland.
U. S. A.	26	Mr. Michael Monkhanoff, President, The International Conference Against Vivisection, 3243, Chestnut Street, Philadelphia, 4, P. A.
	27	Dr. K. Nimmo, D.C., R. N., Oceano, California.
	28	Miss Helene E. Mouser, Secretary, Anti- Vivisection Association of Oregon, Inc., 501, Mckay Building, Portland 4, Oregon.
	29	Mr. Editha L. Button, Sec. Treas., The Humanitarian League of Rochester, 97, Tremont St., Rochester 8, N. Y.—U. S. A.
	30	Mr. Constance M. Barton, Executive Secretary, The Animal's Crusaders, Inc., 3122 Rockefeller Avenue, Everett, Washington.
	31	Mr. Emory S. Avant, Secretary, Peoples Lobby, incorporated, 1337, 21st Street, Washington D. C.
Canada	32	Miss S. J. Stevenson, Secretary, Canadian Assn. for Humane Trapping, 28, Summerhill Gardens, Toronto 7, Ont.
	33	Mr. J. J. Gamache, Secretary, Alberta Anti Vivisection and Humane Education, Society Inc., 1029 6th Ave West, Calgary Alberta.
	34	The Ontario S. P. C. A., 59, Oriole Road, Toronto 7, Ontario, Canada.
	35	Mr. K. F. Wells, Veterinary Director General, Deptt. of Agriculture, Production Service, Health of Animals Division Ottawa, Canada.
Germany	36	Hons. Sohmitt, Koln/Rhein, Kunibertsgasse 13, (Deutschland) Cologne.

APPENDIX IV—contd.

(1)	(2)	(3)
Germany— <i>contd.</i>	37	Ligue Vandoise Anti-Vivisectionniste, 1, Marterey, Lausanne.
	38	Dr. M. Stuart, President, Anti-Vivisectionstichting, Gravenhage.
	39	Hanns Schott, Stadtral, Tierschutzverein Munchen e.V., Munchen 8.
Italy	..	..
	40	Mr. Adele Scarpati Castiglione, Via Salv. Rosa 279 Napoli.
Switzerland	..	..
	41	Mr. Lawrence Pfantz 10, Bis Ch. de Rovereay, Lausanne.
Sweden	..	..
	42	Major Bertil Funck, Secretary, the Federation of the Swedish S. P. C. A. 10 IV Markvardsgatan, Stockholm Va, Sweden.



सत्यमेव जयते

APPENDIX V

LIST OF WITNESSES EXAMINED BY THE COMMITTEE DURING ITS TOURS

Place visited/ date of visit (1)	Sl. No. (2)	Name and address of the witness (3)
Madras 6-10-1955 and 7-10-1955	1	Dr. Mrs. Muthulakshmi Reddi, Chairman, State Social Welfare Advisory Board, Shanti Besant Avenue, Adyar, Madras-20.
	2	Shri Lal Chand Dhada, Madras.
	3	Shri P. M. Balasubramania Mudaliar, Hony. Secretary, Vepery High Road, Vepery, Madras-7.
	4	Shri C. Murugesan, Life Member, Rangoon S. P. C. A., 10, Krishnappa Naicken Agraharam Street, G. T., Madras-1.
	5	Dewan Bahadur K. S. Ramaswami Sastri, Retired District & Sessions Judge, 45 Lloyds Road, Royapettah, Madras.
	6	Shri Jaswant Mull, South Indian Humanitarian League, Madras.
	7	Shri J. S. Sripal, Organiser and Lecturer, South Indian Humanitarian League, 132, Minit Street, Madras.
	8	Shri N. Sri Ram, President, Theosophical Society, Adyar, Madras-20.
	9	Shri R. Govindaraj Naidu, President, Chingleput District Board, Saidapet, Madras-15.
	10	Health Officer, Madras Corporation, Madras.
	11	Veterinary Officer, Madras Corporation, Madras.
	12	Shri S. Pillai, Retired Education Officer and President, Sewa Saddhanta Mahasangam, 175-A, Lloyds Road, Royapettah, Madras.
	13	Dr. D. V. Narayanaswami, Professor, College of Indigenous Medicine, Madras.
	14	Mr. Peter Hoffman, President, Beasnt Lodge, The Theosophical Society, Adyar, Madras-20.
	15	Shri Parthasarthy Iyengar, Commissioner of Police, Madras.
	16	Dr. V. R. Rajagopalan, Director of Animal Husbandry, Madras.
	17	Principal, Madras Veterinary College, Madras.
	18	Dr. Y. S. Narayana Rao, Director, King Institute, Guindy, Madras.

APPENDIX V—contd.

(1)	(2)	(3)
Madras—contd.	19	Shri Sri Prakasa, Governor of Madras, Raj Bhavan, Madras.
	20	Shri Sayed Hamid and Maulana, Butchers, Municipal Slaughter House, Madras.
	21	Shri S. R. Venkataraman, Secretary, Servants of India Society, No. 8, West Cott Road, Royapettah, Madras-14.
	22	Shri S. Viswanatha Sarma, Principal, The Venkataramana Ayurvedic College and Dispensary, Mylapore, Madras.
Kurnool (Andhra) 8-10-1955	.. 23	Minister for Local Administration and Rehabilitation, Government of Andhra, Kurnool.
	24	Secretary, Health Department, Government of Andhra, Kurnool.
	25	Secretary, Industries, Cooperation and Labour Department, Government of Andhra, Kurnool.
	26	Director, Public Health Department, Government of Andhra, Kurnool.
	27	Deputy Director of Animal Husbandry, Government of Andhra, Kurnool.
	28	Director of Medical Services, Government of Andhra, Kurnool.
	29	Chairman, Municipal Committee, Kurnool.
9-10-1955	.. 30	Mrs. T. S. Johan, Vice-President of Local Women Council, Government of Andhra, Kurnool
	31	Kumari Sushila of Local Women Council.
	32	Shrimati M. Lakshman of Local Women Council.
	33	Shrimati Navinitam, Assistant Women's Welfare Officer, Kurnool.
	34	Shri O. Lakshamana Rao, District Veterinary Officer, Kurnool.
	35	Shri Narasimha, Shastri, Humanitarian League, Adoni.
	36	Shri Raghunathmal Jain, Hony. Secretary, Humanitarian League, Adoni.
		} Examined in a group.
	37	Shri C. M. Travedi, Governor of Andhra, Kurnool.
Hyderabad 10-10-1955	.. 38	Prof. Kishan Chand, M. P., Himyet Nagar, Hyderabad Dn.

APPENDIX V—contd.

(1)	(2)	(3)
Hyderabad—contd.	39	Shri Aravamuda Ayyangar, Central Bank, Hyderabad-Dn.
	40	Shrimati Masuma Begum, M. L. A., Hyderabad-Deccan.
	41	Shri Premji Lalji, Secretary, Humanitarian League, B. G. Station Road, Hyderabad-Dn.
	42	Baba Puran Dass and Shri Bisheswara Das, Hyderabad-Dn.
11-10-1955	.. 43	Dr. Shanker, Veterinary Officer, Government of Hyderabad, Hyderabad-Dn.
	44	Dr. K. S. Shetty, Director of Veterinary Services, Government of Hyderabad, Hyderabad-Dn.
	45	Dr. C. R. Naidu, Health Officer, Municipal Corporation, Hyderabad-Dn.
	46	Shri Dharam Raj Mathur, Municipal Commissioner, Secunderabad Municipal Corporation, Secunderabad.
	47	Shri Jagjivan Chand, Secretary, Rural Reconstruction & Planning and Development Department, Government of Hyderabad, Hyderabad-Dn.
	48	Shri Durgish, Municipal Commissioner, Hyderabad Municipal Corporation, Hyderabad-Dn.
	49	Shri Daulat Rai, Chief Conservator of Forests, Government of Hyderabad, Hyderabad-Dn.
	50	Dr. S. K. Jatar, Addl. Director, Medical & Health Services, Government of Hyderabad, Hyderabad-Dn.
	51	Shri C. B. Patil, Assistant Commissioner of Police, Hyderabad-Dn.
	52	Shri F. D. Pestonji, Deputy Secretary, Commerce and Industries Department, Government of Hyderabad, Hyderabad-Dn.
	53	Shri B. Rama Krishna Rao, Chief Minister, Hyderabad State, Hyderabad-Dn.
	54	Mrs. Brij Mohan Lal Somajigoda, Khairatabad, (Hyderabad).
	55	Shri Devarao Damodar Jatkar, Secretary and Shri Raja Rao, Veterinary Surgeon, S. P. C. A. Hospital, B-6-743, Sultan Bazar, Near Head Police Station, Hyderabad-Dn.
	56	Shri Rai Barkat Rai, Retired Revenue Commissioner, Hyderabad-Dn.
	57	Shri V. R. Andurkar, Principal, Government Ayurvedic College, Hyderabad-Dn.

APPENDIX V—contd.

(1)	(2)	(3)
Hyderabad—contd.	58	Shri Hakim Ilyasin, Resident Medical Officer, Niziamah General Hospital, Hyderabad-Dn.
	59	Shri V. B. Devakar, Pharmacist, Indian Medicine Department, Government of Hyderabad, Hyderabad-Dn.
	60	Shri S. N. Reddi, Retired Commissioner of Police, Hyderabad-Dn.
	61	Shri Hanumant Rao, Ex-Mayor, Hyderabad-Dn.
	62	Nawab Nasir Yarjung Bahadur, Retired High Court Judge, Hyderabad-Dn.
	63	Shri V. K. Dhage, M. P., Hyderabad-Dn.
	64	Shri Poonamchand Gandhi, President, Jain Sangh, Hyderabad-Dn.
	65	Shri Manik Chand Jain, Secretary, Jain Sangh, Hyderabad-Dn.
	66	Shri Tekarshi I. Kapadia Jain, Gujarat Pragati Samaj, Hyderabad-Dn.
	67	Mr. Hussain Akhtar, Gujarat Pragati Samaj, Hyderabad-Dn.
	68	Shri Bhimsee Dugerssee Jain, Gujarat Pragati Samaj, Hyderabad-Dn.
	69	Raja Kisandasaji, Gujarat Pragati Samaj, Hyderabad-Dn.
	70	Mrs. Dora Cottle, Head Mistress, Ahuja Primary School for Boys, Hyderabad-Dn.
	71	Miss M. Nandy, Retired Principal, Mahbubia Girls' School, Hyderabad-Dn.
	72	Mr. Tatachar, Retired Advocate, Secunderabad, Hyderabad-Dn.
	73	Mir Ahmed Alikhan, Ex-Deputy Mayor, Municipal Corporation, Jubilee Hill, Hyderabad-Dn.
	74	Shri B. Venkataswamy, Chairman, Markets & Slaughter House Committee, Hyderabad Municipal Corporation, Shali Banda, Hyderabad-Dn.
	75	Moulvi Walliullah Hussain, President, All-India Religious Association, Hyderabad-Dn.
Patna 6-11-1955	76	Justice Shri Raj Kishore Prasad, Judge, Patna High Court, Patna.
	77	Shri M. K. Sinha, Inspector-General of Police, Bihar, Patna.
	78	Mrs. Howieson, Secretary and Treasurer, Bihar S.P.C.A., Dhanabad Branch, Patna.

APPENDIX V—contd.

(1)	(2)	(3)
Patna—contd.	79	Shri Dharam Lal Singh, Hony. Secretary, State S.P.C.A. and Federation of Gaushalas and Pinjrapoles, Bihar, Patna.
	80	Shri Shyamanandan Sahay, Chairman, Bihar S. P. C. A., Patna.
	81	Shri B. D. Pande, I. C. S., Development Commissioner, Bihar, Patna.
	82	Shri Shambhu Dayal, Honorary Secretary, Bihar Theosophical Federation, Patna.
	83	Shri H. B. Chandra, M. L. C., Secretary, Besant Theosophical Lodge, Patna.
7-11-1955	84	Shri S. K. Sen, Additional Director, Animal Husbandry, Bihar, Patna.
	85	Shri P. B. Kuppaswamy, Professor of Pathology and Bacteriology, Veterinary College, Bihar, Patna.
	86	Shri Dip Narayan Sinha, Minister Incharge Cooperation and Animal Husbandry Department, Government of Bihar, Patna.
	87	Shri M. J. Mallick, Director of Animal Husbandry, Bihar, Patna.
	88	Shri M. K. Mukherjee, Deputy Secretary, Development Department, Government of Bihar, Patna.
	89	Shri R. N. Arora, President, Shri Krishna Goshala, Patna.
	90	Shri B. L. Bidrana, General Secretary, Shri Krishna Goshala, Patna.
	91	Shri P. N. Srivastva, Manager, Shri Krishna Goshala, Patna.
	92	Shri Kamrul Hussan Pirzada, Khan-Ka-Phulwari Sarif, Patna.
Calcutta 8-11-1955	93	Dr. A. Mukherjee, Health Officer, Calcutta Corporation, Calcutta.
	94	Shri M. R. Sen, Superintendent, Tangra Slaughter House, Calcutta.
	95	Shri N. S. S. Narayana, Port Health Officer, Calcutta.
	96	Dr. B. N. Dutt, Superintendent, West Bengal Vaccine Institute and Laboratory, Calcutta.
	97	Dr. S. P. De, Central Drugs Laboratory, Government of India, Calcutta.

APPENDIX V—contd.

(1)	(2)	(3)
<i>Calcutta—contd.</i>	98	Dr. P. K. Sanyal, Drugs Central Laboratory, West Bengal, Calcutta.
	99	Lt. General Chakrabarty, C/o West Bengal Government, Calcutta.
9-11-1955	100	Shri H. Sarkar, Inspector-General of Police, Calcutta
	101	Shri H. S. Ghosh Chowdhry, Commissioner of Police, Calcutta.
	102	Shri I. B. Surita, Deputy Secretary, Home Department, Government of West Bengal Calcutta.
	103	Shri C.S. Burman, Deputy Com- missioner of Police, Calcutta.
	104	Shri K. Sen, I. C. S., Secretary, Agriculture, Veterinary and Animal Husbandry Depart- ment, Government of West Bengal, Calcutta.
	105	Shri Lahiri, Superintendent, Zoological Garden, Govern- ment of West Bengal, Calcutta.
	106	Shri Mathur, Joint Chief Con- troller, Exports & Imports, Government of India, Calcutta.
	107	Shri N. Pal, Conservator of Forests, Government of West Bengal, Calcutta.
	108	Shri M. Mukherjee, Chief Presi- dency Magistrate, Calcutta.
	109	Shri N. C. Chakravarti, Retired Chief Presidency Magistrate and Member of the All-India S.P.C.A., 276, Bow-Bazar Street, Calcutta-12.
	110	Shri P. Banerji, Secretary and Superintendent, Calcutta S.P.C.A., Calcutta.
	111	Mr. L. W. New Bond, Secretary, All-India S.P.C.A., 276, Bow- Bazar Street, Calcutta-2.
	112	Shri D. J. Cohen, All-India S.P.C.A., 276, Bow Bazar Street, Calcutta-12.
	113	Shri Abdul Khasim, Superintendent, Animal Mart, Hogg Municipal Market, Calcutta.
	114	Shri Baijnath Bajoria, President, West Bengal Gau- shala and Pinjrapole Federation and President, West Bengal Pinjrapole Association, Calcutta.

APPENDIX V—contd.

(1)	(2)	(3)
Calcutta—contd.	115	Shri B. K. Sen, Commissioner, Calcutta Corporation, Calcutta.
	116	Health Officer, Calcutta Corporation, Calcutta.
	117	Shri S. Mitra, District Engineer, Calcutta Corporation, Calcutta.
		} Examined in a group.
	118	Mrs. Ila Sen, C/o The Vice-President, All Lovers of Animals Society, 30, Chowringhee Mansions, Kyd Street, Calcutta-16.
	119	Shri Brij Mohan Kalananria
	120	Shri Man Singh Majiree
	121	Shri Mangi Lall Kejriwal
	122	Shri Fakir Chand Aggarwal
		} Representing Goraksha Seva Samity, Calcutta. Examined in a group.
10-11-1955	123	Dr. R. Ahmed, Minister for Agriculture and Veterinary, Government of West Bengal, Calcutta.
	124	Shri H. C. Mukherjee, Governor of West Bengal, Calcutta.
	125	Mrs. Willis
	126	Miss Rita Pyne
	127	Miss Ela Sen
	128	Miss Dissent
		} Representing the All-Lovers of Animals Society, Calcutta. Examined in a group.
	129	Rai Bahadur Ramdev Chowkhani, Calcutta.
	130	Shri Ram Kishan Dhanuka, Ex-Secretary, Calcutta Pinjrapole Dairy and Preservation of Cows and Dairy Farm, Calcutta.
	131	Shri Kali Prasad Khaitan, Calcutta.
	132	Mrs. Dorothy Mitra, P-25, Darga Road, Park Circus, Calcutta-17.
11-11-1955	133	Shri A. W. Chater
	134	Shri K. C. Sen
	135	Shri K. L. Akhuli
	136	Shri T. N. De, C/o M/s Dey & Dutt, 20-A, Girish Park, Calcutta-6.
	137	Shri M. P. Kasera, Honorary Secretary, Society for the Protection and Improvement of Cattle, Calcutta.
	138	Shri B. L. Lath, Representing Marwari Relief Society, Calcutta.
		} Representing India Live-stock, Shippers' Association, 53-C, Chowringhee Road, Calcutta. Examined in a group.

APPENDIX V—contd.

(1)	(2)	(3)
Calcutta—contd.	139	Shri Raj Kumar Preston, 6, Ballygyunge Park, Calcutta.
	140	Dr. N. Mittra, P-25 Darga Road, Park Circus, Calcutta-17.
	141	Dr. B. C. Roy, Chief Minister, West Bengal, Calcutta.
Bombay 8-1-1956	.. 142	Shri J. N. Mankar, (Main Spokesman).
	143	Dr. N. V. Bhure.
	144	Shri B. D. Mehta.
	145	Shri Harilal D. Zaveri.
	146	Shri Meghji Sojpal.
	147	Shrimati Mehra R. Vakil (Main Spokesman) and six other representatives of the All-India Animal Welfare Association, Bombay.
	148	Shri S. N. Chheda, Representative of Cutch Patri Bombay Mahajan, Bombay.
	149	Shri Jivatlal Partapshi, Rao Bahadur, Managing Trustee.
	150	Shri Ratilal Chrabildas.
	151	Shri Amoulakh Manganlal.
	152	Shri G. D. Shah.
	153	Representative of the Arya Samaj, Bombay.
	154	Shri Cowsi Batliwala.
	155	Shri Dinshaw Buxey.
	156	Shri Rusi Toddy Walla.
9-1-1956	.. 157	Shri R. L. Sawhny.
	158	Mrs. S. K. Powvala, Vice-President.
	159	Shri Chandra Kant Jagawhiwala, S. P. C. A., Ahmedabad.
	160	Madam Sophia Wadia, Bombay S. P. C. A., Bombay.
	161	Shri Nanabhai Lalbhai, S. P. C. A., Surat.

APPENDIX V—contd.

(1)	(2)	(3)
Bombay—contd.	162	Shri Ganapati Shanker Desai, Bombay.
	163	Dr. Hiray, Superintendent of Markets, (Representing the Municipal Commissioner), Bombay.
	164	Shri S. R. Chaddha, Director of Veterinary Services, Government of Bombay, Poona.
	165	Shri Nariman Jahina
	166	Dr. Erach H. D. Suntook
		} Representing the Parsi Vegetarian and Temperance Society, Bombay. Examined in a group.
	167	Dr. Kulkarni, Director of Fisheries, Bombay.
	168	Shri Humayun Abdul Ali, Natural History Society, Bombay.
10-1-1956 ..	169	Shri B. V. Gupte, Police Prosecutor.
	170	Shri Gadgil, Sub-Inspector of Police.
		} Representing the Commissioner of Police, Bombay.
	171	Dr. D. H. Welankar.
	172	Shri Atmaram Jamsidkar.
		} Representing the Bombay Hack Victoria Owner and Drivers' Union, Bombay. Examined in a group.
	173	Shri Dewan Bahadur Jhaveri, Bombay.
	174	Shri Shiv Sharma, Vaidya Ratna, Bombay.
	175	Dr. L. D. Dhavle, Incharge of the Government Homoeopathic College, Bombay.
	176	Shri A. L. Mehta, Member of the Managing Committee of Bombay Humanitarian League, Bombay.
	177	Smt. Dalal.
	178	Shri Alpaiwala.
	179	Shri Upadia.
		} Representing Theosophical Society, Bombay. Examined in a group.
	180	Swami Sambudhanand, Ram Krishna Mission, Bombay.
	181	Swami Saddchidanand, Divine Life Society, Hrishikesh.
	182	Shri S. Dikshit, Bombay.
	183	Moulvi Behari, Representing the Moulvis of Bombay.

APPENDIX V—contd.

(1)	(2)	(3)
Bombay—contd.	184	Dr. V. R. Khanolkar, Director, Indian Cancer Research Centre, Bombay.
	185	Shri Harikrishna Mehtab, Governor, Bombay.
	186	Shri Morarji Desai, Chief Minister, Bombay.
11-1-1956 ..	187	Shri Panachand M. Shah, Representing Anti-killing Association, Ahmedabad.
	188	Shri Thirumalai, Editor, Agricultural Economist, Bombay.
	189	Shri Tulsidas Vishram, Representing Bombay Pinjrapole, Bombay.
	190	Shri M. T. Vyas, Principal of the New Era School, Bombay.
	191	Shri J. N. Mankar, Representing Gogras Gogivadan Mandal, Goraksha League and Juna Deesa Pinjrapole.
	192	Shri C. N. Shah, Representing Juna Deesa Pinjrapole.
	193	Shri P. A. Mhatre, Representing Gogras Bhiksha Sanstha, Dombivil Goshala.
	194	Shri Jilani Shamsuddin.
	195	Shri Abdul Kadar Mohim.
	196	Shri D. K. Samant.
	197	Shri M. G. B. Zari.
	198	Shri R. A. Ghodikar, Bharat Gowardhan Mandal, Bombay.
	199	Shri Kesari Mal Bhandavat of Ajmer.
	200	Shri Satiya Nand H. O. Mascarenhas St. Sebastian High School, Thakurdwar, Bombay.
Poona		
12-10-1956 ..	201	Shri M. S. Sirdar, Hony. Secretary, Sholapur District Animal Welfare Society, Sholapur.
	202	Dr. Mrs. Shalini Bai V. Tilak, S. P. C. A., Poona.
	203	Shri Jaganath Rao Pandit, S. P. C. A., Poona.
	204	Mrs. Shanta Bhandarkar, S. P. C. A., Poona.
	205	Dr. J. V. Datar, S. P. C. A., Poona.
	206	Shri Homi N. Driver, Automobile Engineer and Military Contractor, Poona.
	207	Shri B. K. S. Iyengar, Poona.

APPENDIX V—contd.

(1)	(2)	(3)
Poona—contd. 13-1-1956	208	Dr. V. K. Vishwanathan, Director of Public Health, Government of Bombay, Poona.
	209	Shri Dharmakumar Singhji, Wild Life Preservation Officer, Government of Bombay, Poona.
	210	Shri E. K. Kotwal, Conservator of Forests, Government of Bombay, Poona on behalf of the Chief Conservator of Forests.
	211	Shri S. K. Bedekar, Deputy Director of Agriculture, Government of Bombay, Poona.
	212	Shri S. S. Dole of Gowardhan Sanstha, Poona.
	213	Shri Nawathe, Pinjrapole, Poona.
	214	<div>Dr. C. M. Dinghe, Medical Officer of Health, Poona Corporation, Poona.</div> <div>Representing Ayurvedic College, Poona. Examined in a group.</div>
	215	
	216	
Amritsar 25-2-1956	217	<div>Dr. Miss Vine.</div> <div>Representing S. P. C. A., Amritsar. Examined in a group.</div>
	218	
	219	
	220	Shri Sohanlal, S. P. C. A., Jullundur.
	221	Lt. G. S. Peshar, S. P. C. A., Ferozepur.
	222	Shri Kartar Singh, Medical Officer of Health, Municipal Committee, Amritsar.
	223	<div>Shri Narain Dass Vig, Secretary.</div> <div>Representing Municipal Committee Amritsar. Examined in a group.</div>
	224	
	225	
	226	Representatives of the Rerigadda Union (Urban and Rural), Amritsar.
26-2-56	227	<div>Shri Ratan Chand.</div> <div>Representing Pinjrapole and Gaushala, Amritsar.</div>
	228	
	229	Shri Dharpal Singh, Conservator of Forests, Amritsar.
	230	Dr. Gurbuxsh Singh, Director of Health Services, Punjab, Kasauli.
	231	Principal, Medical College, Amritsar, with three Professors of the College.

APPENDIX V—contd.

(1)	(2)	(3)
Delhi		
30-11-1955	232 Dr. Lane Petter, Laboratory Animals Bureau, M.R.C. Laboratories, Hampstead, London N. W.-3.
9-3-1956	233 Dr. Sushila Nayar, President. } S. P. C. A., 234 Shri Jindralal, Secretary. } Delhi. Examined in a group.
		235 Shri S. P. Jain, Secretary-General, Cultural Forum, 2653, Roshanpura, Naisarak, Delhi-6.
		236 Raj Vaid Shri Sudhanwa, West Patel Nagar, New Delhi.
		237 Shri Prem Chand Jain, Ahimsa Parcharak Jain Samiti, Lal Mandir (Opposite Red Fort), Delhi.
		238 Major-General S. S. Sokhey, M. P., 31, Western Court, New Delhi.
		239 Dr. M. L. Passi, Medical Officer of Health, Delhi Municipal Committee, Delhi.
11-3-1956	240 Shri M. R. Sharma, Secretary, All-India Cattle Show Committee, New Delhi.
		241 Dr. C. G. Pandit, Director, Indian Council of Medical Research, New Delhi.
		242 Shri Pyare Lal, 42, New Delhi Town Hall, Parliament Street, New Delhi.
		243 Shri Nihal Singh, M. P., 114-C, North Avenue, New Delhi.
		244 Shri C. P. Ramaswamy Iyer, Vice-Chancellor, Banaras Hindu University, Banaras.
		245 Shri P. D. Tandon, M. P., New Delhi.
		246 Mr. T. E. Petterson, Zoological Collector, Animal Farm, Parade Road, New Delhi.
		247 Dr. J. C. Ramchandani, Development Commissioner, Delhi State, Delhi.
		248 S. Mohinder Singh, Assistant Director (Veterinary), Delhi State, Delhi.
		249 Shri Dewan Chand Ahimsak, 19/20, Old Fort, Delhi.
2-5-1956	250 Shri P. M. Lad, I. C. S., Secretary, Ministry of Information and Broadcasting, Government of India, New Delhi.
		251 Major K. K. Gupta, Senior Scientist, Defence Science Laboratory, Ministry of Defence, New Delhi.
		252 Shri R. S. Chopra, Former employee of M/s Veeta, Ltd., New Delhi.

APPENDIX V—contd.

(1)	(2)	(3)
Delhi—contd.	253	S. Manmohan Singh, Former employee of M/s Peters Ltd., New Delhi.
	254	Col. Jaswant Singh, Director, Malaria Institute of India, Delhi.
	255	Dr. B. C. Ray-Sarker, Senior Scientist, Defence Science Laboratory, Ministry of Defence, New Delhi.
	256	Dr. C. B. D' Silva, Director, Central Research Institute, Kasauli.
	257	Dr. V. N. Patwardhan, Director, Institute of Nutritional Research, Koonoor.
	258	Dr. S. Subramaniam, Director, Central Food Technological Research Institute, Mysore.
Lucknow 16-3-1956	259	Col. G. R. Oberoi, President, S. P. C. A., Lucknow.
	260	Shri D. N. Jha, Advocate, Representative of the S. P. C. A., Lucknow.
	261	Dr. K. K. Govil, Medical Officer of Health, Municipal Board, Lucknow.
	262	Shri C. S. Bose, 7, Rutledge Road, Lucknow.
	263	Shri P. G. Pande, Director of Animal Husbandry, U. P., Lucknow.
	264	Shri M. G. Kaul, I. C. S., Home Secretary, U. P. Government, Lucknow.
	265	Col. R.K. Tandon, Superintendent, Medical College, Lucknow.
	266	Shri J. N. Ugra, I. A. S., Secretary to the Government of U. P., Lucknow.
17-3-1956	267	Dr. Sampurnanand, Chief Minister, U. P., Lucknow.
	268	Shri Shitla Prasad Singh, Founder, Gopal Singh Janta Press, Shahnajaf Road, Lucknow.
	269	Shri Indrajit Jain, 21-E, Birhana Road, World Jain Mission, Kanpur.
	270	Shri Pooran Chandra, Arya Pritinidhi Sabha, U. P., Lucknow.
	271	Shri Y. M. Parnekar, Officer-in-Charge, Pashulok Farm, Rishikesh.
	272	Shri E. H. Canteenwala, Treasurer, S. P. C. A., Lucknow.
	273	Lt. R. B. K. L. Gupta, Hony. Secretary, S. P. C. A., Kanpur.

APPENDIX V—contd.

(1)	(2)	(3)
Lucknow—contd.	274	Acharya Judgal Kishore, Minister, U. P., Lucknow.
	275	Dr. B. S. Tandon, Principal, National Homoeopathic College, Lucknow.
	276	Dr. M. C. Batra, Vice-Principal, National Homoeopathic College, Lucknow.
	277	Shri K. M. Munshi, Governor, U. P., Lucknow.
	278	Smt. Lilawati Munshi, Raj Bhawan, Lucknow.
18-3-1956	279	Shri C. B. Gupta, Minister for Planning, U. P., Lucknow.
	280	Mohd. Abdul Kadir Moulvi of Lucknow.
	281	Shri Suresh Chandra, No. 362, Near District Jail, Sitapur (U. P.)
	282	Shri A. P. Jindal, Ajit Ashram, Opposite Ganeshganj, Lucknow.
	283	Shri B. B. Srivastava, Homoeopath, Dr. Pyrelal Road, Lucknow.
	284	Shri K. S. Tripathi, I. P. S., Superintendent of Police, Lucknow.
	285	Shri D. L. Shah, I. F. S., Chief Conservator of Forests, U. P., Lucknow.
	286	Shri K. M. Lal, Director of Medical and Health Services, U. P., Lucknow.
	287	Dr. M. Sardar Khan, Superintendent, Zoological Garden, Lucknow.
	288	Shri V. N. Khanna, Secretary, S. P. C. A., Lucknow.
	289	Shri K. L. Gupta, Secretary, S. P. C. A., Lucknow.
	290	Sheikh Mohd. Ismail Chowdhry of Thelawala Association, Lucknow.
	291	Dr. Mukerji, Director, Central Drug Research Institute, Lucknow.
Jaipur 7-4-1956	292	Dr. Jwala Prasad Maheshwari, Jaipur.
	293	Shri K. P. Tiwari, Retired D. I.G. of Police.
	294	Shri Jai Kumar Jain.
	295	Shri Raj Roop Tank.
	296	Shri Gopichand Agarwal on behalf of the Congress Committee, Jaipur.

Representing
S a n g a n e r
Goshala, Jai-
pur. Exa-
mined in a
group.

APPENDIX V—concl'd.

(1)	(2)	(3)
Jaipur— <i>contd.</i>		
	297	Shri Vaid Gopal Sharma on behalf of the Congress Committee, Jaipur.
	298	Shri Sen, Chief Conservator of Forests, Rajasthan, Jaipur.
	299	Shri Nandan Bhargava, Conservator of Forests, Rajasthan, Jaipur.
	300	Dr. N. A. C. Kawasji, Dy. Director of Medical and Health Services, Rajasthan, Jaipur.
	301	Dr. Kahali, Professor of Physiology, Veterinary College, Bikaner.
	302	Dr. Mohan Singh, Vice-Principal, Veterinary College, Bikaner.
	303	Dr. Sankaranarayan, Disease Investigation Officer, Jaipur.
	304	Dr. G. S. Rathore, Dy. Director (Veterinary), Rajasthan, Jaipur.
	305	Dr. D. R. Bajaj, Divisional Veterinary Officer and Dy. Director, Key Village Schemes, Jaipur.
	306	Col. Kesari Singh, Hunter, Jaipur.
	307	Shri Itar Singh, Hackney Carriage Inspector, Jaipur Municipality, Jaipur.
	308	Shri Ram Singh, Veterinary Inspector, Jaipur Municipality, Jaipur.
	309	Choudhari Hashmat Ali, Secretary, Tonga Union, Jaipur.
Mysore 6-7-1956	310	His Highness the Rajpramukh of Mysore, Mysore.

APPENDIX VI

LIST OF THE INSTITUTION VISITED BY THE COMMITTEE

Place and date of visit			Sl. No.	Name of the Institution visited
(1)			(2)	(3)
Madras				
6-10-1955	..	..	1	Madras Pinjrapole, Madras.
7-10-1955	..	..	2	Veterinary College, Madras.
			3	King Institute, Guindy, Madras.
			4	Lethal Chamber, Madras Municipality, Madras.
			5	Municipal Slaughter-House, Madras.
Hyderabad				
10-10-1955	..	..	6	Veterinary Serum Institute, Hyderabad.
			7	S. P. C.A. Hospital, Hyderabad.
			8	Unani Hospital, Hyderabad.
Patna				
6-11-1955	..	..	9	Shree Krishna Goshala, Patna.
			10	Branch of Shree Krishna Goshala, Patna.
			11	Rajendra Gokul Shree Goshala, Patna.
			12	Prince of Wales Medical College, Patna.
Calcutta				
9-11-1955	..	..	13	Animal Mart in the Hogg Municipal Market, Calcutta.
10-11-1955	..	..	14	Khadi Pratisthan, Sodepur, Calcutta.
			15	Calcutta Pinjrapole Society, Calcutta.
			16	The Bengal Immunity Ltd., Calcutta.
			17	Khatahs of Cows and Buffaloes in Gowa Bagan, Calcutta.
			18	Calcutta School of Tropical Medicine, Calcutta.
			19	The All-India Institute of Hygiene and Public Health, Calcutta.
11-11-1955	..	..	20	The Kalighat Temple, Calcutta.
			21	Indian Institute of Medical Research, Calcutta.
			22	Tangra Slaughter-House, Calcutta.
12-11-1955	..	...	23	Zoological Garden, Calcutta.

APPENDIX VI—contd.

(1)		(2)	(3)
Bombay			
19-1-1956	..	24	Indian Cancer Research Institute, Bombay.
		25	Haffkine Institute, Bombay.
		26	Bombay Pinjrapole, Bombay.
Poona			
12-1-1956	..	27	S. P. C. A. Hospital, Poona.
		28	The Hindustan Anti-Biotics Ltd., Poona.
		29	Virus Research Centre, Poona.
Amritsar			
25-2-1956	..	30	S. P. C. A. Infirmary, Amritsar.
Bareilly			
15-3-1956	..	31	Indian Veterinary Research Institute, Izatnagar Bareilly.
		32	Garjia Soat Gosadan, P.O. Rudrapur, District Nainital (U. P.).
Lucknow			
16-3-1956	..	33	Central Drug Research Institute, Lucknow.
		34	S. P. C. A., Lucknow.
		35	Biological Products Section of the Animal Husbandry Department, Lucknow.
17-3-1956	..	36	Lucknow Railway Station to see the handling of Monkeys caught for the purpose of export from India.
Jaipur			
7-4-1956	..	37	Hatwara (Cattle Market), Jaipur.
		38	Village Bassi (Near Jaipur) to interview the residents of the village and to see the Bassi Cattle Breeding Farm.
		39	Village Sanganer (in the suburb of Jaipur) to interview the residents of the village in the Office of the Block Development Officer.
		40	Goshala, Jaipur.
9-4-1956	..	41	Zoological Garden, Jaipur.
Mysore			
6-7-1956	..	42	Central Food Technological Research Institute, Mysore.
		43	Zoological Garden, Mysore.

APPENDIX VII

PROVISIONS IN THE INDIAN ACTS AND BILLS ON THE PREVENTION OF CRUELTY TO ANIMALS IN FORCE PRIOR TO THE ENACTMENT OF THE PREVENTION OF CRUELTY OF ANIMALS ACT, 1890.

No. and year (1)	Subject (2)	Provisions (3)	Local application (4)
I. ACTS OF THE GOVERNOR-GENERAL IN COUNCIL			
Act XXI of 1857.	An Act to make better provision for order and good government of the station of Howrah.	<p><i>Section 23</i>—Whoever, in any public street, road, thoroughfare or place of public resort, commits any of the following offences, shall be liable to a fine not exceeding twenty rupees.</p> <p style="text-align: center;">* * *</p> <p>(ii) Whoever...sets on or urges any dog or other animal to attack, worry or put in fear any person, horse or other animal.</p> <p style="text-align: center;">* * *</p> <p>(v) Whoever cruelly beats, abuses or tortures any animal.</p> <p style="text-align: center;">* * *</p> <p><i>Section 51</i>—Any police officer may arrest without a warrant any person committing in his view any offence against this Act, if the name and address of such person be unknown to him.</p>	In force in the station of Howrah.
Act XXIV of 1859.	Madras Police	<p><i>Section 48 (as amended by Madras Act I of 1872, section 1, and Madras Act I of 1885, section 1)</i>—Any person who, within the limits of any town or other place to which this section shall, by notification in the Fort St. George Gazette, be specially extended by Government, commits any of the following offences, shall, on conviction before a Magistrate, be liable to a fine not exceeding fifty rupees, or to imprisonment not exceeding eight days; and it shall be lawful for any police officer to take into custody without warrant any person who within (his) view commits any such offence.</p> <p style="text-align: center;">* * *</p> <p>Second—Any person who wantonly or cruelly abuses or tortures any animal.</p>	This Act was declared, by Act XV of 1874 section 4, to apply to the whole of the Madras Presidency, except the Scheduled Districts. It was extended; under section 5 of the Scheduled Districts Act XIV of 1874, to the taluqs of Bhadrachalam and Rakapilli, in the Godavari District.

APPENDIX VII—contd.

(1)	(2)	(3)	(4)
I. ACTS OF THE GOVERNOR-GENERAL IN COUNCIL—contd.			
Act XXIV of Madras Police 1859—contd.	Section 1—The word “cattle” shall, besides horned cattle, include elephants, camels, horses, asses, mules, sheep, goats, and swine. (“Animal” is not defined.)		
Act XLV of 1860.	Penal Code	Section 428—Whoever commits mischief by killing, poisoning, maiming or rendering useless any animal or animals of the value of ten rupees or upwards shall, be punished with imprisonment of either description for a term which may extend two years, or with fine, or with both. Section 429—Whoever commits mischief by killing, poisoning, maiming or rendering useless any elephant, camel, horse, mule, buffalo, bull, cow or ox, whatever may be the value thereof, or any other animal of the value of fifty rupees or upwards, shall be punished with imprisonment of either description for a term which may extend to five years, or with fine or with both.	The Code applied to the whole of British India. It was declared in force under the Scheduled Districts Act, 1874 in (1) the districts of Hazaribagh, Lohardaga and Manbhum, and Pargana Dhalbhum and the Kolhan in the District of Singhbhum and (2) the North-Western Provinces, Tarai District. It was also in force in Upper Burma (except the Shan States).
		Under the Punjab Frontier Crimes Regulation IV of 1887, section 14 (2), a person convicted of an offence under section 428 or section 429 of the Penal Code may be sentenced, in lieu of or in addition to fine or imprisonment, to be whipped. A Police Officer may arrest, without warrant any person committing an offence under Section 428 or Section 429 of the Code—see Act X of 1882, Schedule II.	
Act XLVIII of 1860.	Police	Section 19—Whoever, within such limits as shall be from time to time defined by the Commissioner of Police with the sanction of the	This Act was in force in the town of Bombay. These two Acts originally applied also to the towns of Calcutta and

APPENDIX VII—contd.

(1)	(2)	(3)	(4)
I. ACTS OF THE GOVERNOR-GENERAL IN COUNCIL— <i>contd.</i>			
Act XLVIII of 1860.— <i>contd.</i>	Police	Local Government, in any public street, road, thoroughfare or place of public resort, commits any of the following offences, shall be liable to a fine not exceeding fifty rupees :—	Madras, but they were repealed as to those towns by Bengal Act IV of 1866, Section 2, and Madras Act VII, of 1867, Section 81 respectively.
		(6) Whoever...sets on or urges any dog or other animal to attack, worry or put in fear any person, horse or other animal;	Section 19 applied to all public streets, roads and thoroughfares within the town and island of Bombay.
		(7) Whoever, by negligence or ill-usage in driving cattle, causes any mischief to be done by such cattle, or in any wise misbehaves himself in the driving, management, or care of such cattle, so as to cause mischief or obstruction;	
		<i>Section 21</i> —Whoever cruelly beats, ill-treats, abuses or tortures, or causes or procures to be cruelly beaten, ill-treated, abused or tortured, any animal shall, for every such offence, be liable to a fine not exceeding one hundred rupees, and in default thereof to imprisonment, with or without hard labour, for a period not exceeding three months.	
		Act XLVIII of 1860 is to be read with and taken as part of Act XIII of 1856. The following Sections of Act XIII of 1856 apply therefore, to offences under the foregoing Sections 19 and 51 :—	
		Act XIII of 1856, Section 86—Any police officer may arrest without a warrant, any person committing in his view any offence against this Act.	
		Act XIII of 1856, Section 88.—Whoever commits an offence on or with respect to the person or property of another or, in committing an offence under this Act, injures or damages the person or property of another, may, if his name and address	

APPENDIX VII—contd.

(1)	(2)	(3)	(4)
<i>I—ACTS OF THE GOVERNOR-GENERAL IN COUNCIL—contd.</i>			
Act XLVIII of 1860 — <i>contd.</i>	Police	be unknown, be apprehended by the person injured, or by any person who may be using the property to which the injury may be done, or by the servant of either of such person, or by any person authorised by or acting in aid of him. * * *	
Act V of 1861.	Police	Section 34—Any person who, on any road or in any street or thoroughfare within the limits of any town to which this section shall be specially extended by the Local Government, commits any of the following offences to the obstruction, inconvenience, annoyance, risk, danger, or damage of the residents and passengers, shall, on conviction before a Magistrate, be liable to a fine not exceeding fifty rupees, or to imprisonment not exceeding eight days; and it shall be lawful for any police officer to take into custody, without a warrant, any person who within his view commits any of such offences namely :— * * * Second—Any person who wantonly or cruelly beats, abuses or tortures any animal.	<p>1. It was declared in force, under section 3 of the Scheduled Districts Act, 1874, in the Districts of Hazaribagh, Lohardaga and Manbhum and Pargana Dhalbhum, and the Kolhan in the District of Singhbhum. It was declared in force in Upper Burma (except the Shan States) and was extended Coorg.</p> <p>2. Act XIII of 1889, section 12 (2) declared cantonments to be towns for the purposes of Section 34 of Act V of 1861.</p> <p>3. Section 34 was specially extended to—</p> <ol style="list-style-type: none"> (1) 43 towns in Bengal; (2) 19 towns in the North-Western Provinces and Oudh; (3) 101 towns in the Punjab; (4) all sadar and out stations under the Punjab Government including the cities and towns adjacent thereto; (5) all cantonments in the Punjab; (6) 3 towns in the Central Provinces; (7) 96 towns in Burma; (8) 11 towns in Coorg;

APPENDIX VII—contd.

(1)	(2)	(3)	(4)
<i>I—ACTS OF THE GOVERNOR-GENERAL IN COUNCIL—contd.</i>			
Act V of 1861— <i>contd.</i>	Police		(9) 4 towns in Ajmer-Merwara; (10) the cantonment of Nasirabad; (11) Ross Island (Andamans & Nicobar Islands); and (12) 6 towns in Assam.
Act XVI of 1861.	Stage-carriages.	<i>Section 8</i> —Any proprietor, or agent of a proprietor, or any driver of a licensed stage carriage who knowingly permits such carriage to be drawn by a less number of horses, or who knowingly permits a larger number of passengers, or a greater weight of luggage, to be carried by such stage-carriage than shall be provided by the license shall be liable on a first conviction to a fine not exceeding one hundred rupees, and on any subsequent conviction to a fine which may extend to five hundred rupees.	This Act applied to the whole of British India. It was declared in force under the Scheduled Districts Act, 1874, in the districts of Hazaribagh, Lohardaga and Manbhum, and Pargana Dhalbhum and the Kolhan, in the district of Singhbhum and the North-Western Provinces, Tarai.
		<i>Section 9</i> .—Any person who shall cruelly beat, ill-treat, over-drive, abuse, torture, or cause or procure to be cruelly beaten, ill-treated, over-driven, abused or tortured, any horse employed in drawing or harnessed to any stage-carriage, or who shall harness to or drive in any stage-carriage any horse which from sickness, age, wounds or other cause is unfit to be driven in such stage-carriage, shall for every such offence be liable to a fine not exceeding one hundred rupees.	
		<i>Section 21</i> —All expressions and provisions which in this Act are applied to horses shall also apply to all other animals employed in drawing any carriage ordinarily used for the purpose of conveying passengers for hire to or from any place in British India. (This clause was inserted by Act XVI of 1876, section 1).	

APPENDIX VII—contd.

(1)	(2)	(3)	(4)
I. ACTS OF THE GOVERNOR-GENERAL IN COUNCIL—contd.			
Act III of 1867.	Gambling	<p>Section 13—A Police Officer may apprehend without warrant—</p> <p style="text-align: center;">* * *</p> <p>any person setting any birds or animals to fight in any public street, place or thoroughfare situated within the limits aforesaid (<i>i. e.</i>, the limits to which the Act applies), or any person there present aiding and abetting such public fighting of birds and animals.</p> <p>Such person when apprehended shall be brought without delay before a Magistrate, and shall be liable to a fine not exceeding fifty rupees, or to imprisonment, either simple or rigorous, for any term not exceeding one calendar month.</p>	<p>Section 13 applied to the North-Western Provinces, the Punjab, Oudh, the Central Provinces, and Lower Burma.</p> <p>It was (with other sections) declared in force in Tarai District and in Upper Burma (except the Shan States). It was (with other sections) extended to Coorg, Assam and twelve towns in Ajmer.</p>
Act XIV of 1879.	Hackney-carriages.	<p>This Act [Section 6, Clause (k)] authorises the making of rules for limiting the number of persons and the weight of property which may be conveyed in a hackney-carriage, and provides (Section 7) that any person breaking any such rule shall be punished with fine which may extend to fifty rupees. "Hackney-carriage" is defined in Section 2 to mean any wheeled vehicle drawn by animals and used for the conveyance of passengers which is kept, or offered, or plies, for hire.</p>	<p>Such rules might be made—</p> <p>(1) for any municipality in the North-Western Provinces, the Punjab, Oudh, the Central Provinces, Assam, Ajmer, Coorg, Lower Burma or Upper Burma (except the Shan States) to which the Act was applied by the Local Government. The Act was extended to Upper Burma (except the Shan States);</p> <p>(2) for any military cantonment in the aforesaid territories.</p> <p>Any rules made under the Act might be extended to any railway station, or specified part of a road, not more than six miles from the local limits of the municipality or cantonment concerned.</p> <p>Any rules made under the Act for a municipality might be extended to any cantonment the boundary of</p>

APPENDIX VII—contd.

(1)	(2)	(3)	(4)
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I. ACTS OF THE GOVERNOR-GENERAL IN COUNCIL—*concl'd.*

Act XIV of Hackney-car-
1879—*cont'd.* riages.

which is not more than six miles distant from the boundry of such municipality.

Act XIII, Cantonments.
1889.

Section 26—The Governor-General in Council may make rules consistent with Act to provide for all or any of the following matters, namely :—

(24) the prevention of cruelty to animals.

Section 27 (4)—In making any rule under Clause (12) or any of the following clauses of the last foregoing section, the Governor-General in Council may direct that a breach of it shall be punished with fine which may extend to fifty rupees, with or imprisonment for a term which may extend to eight days.....

This Act applied to the whole of British India, inclusive of Upper Burma.

Any rule in force in a cantonment under Section 26, clause (24), might be extended to any area beyond the cantonment and in the vicinity thereof.

II. ACTS AND BILL OF THE GOVERNOR OF MADRAS IN COUNCIL.

Madras Act Hackney-car-
III of 1879. riages.

Section 38—Every driver or attendant of a hackney-carriage who.....

shall carry more than such number of passengers (*i. e.*, the number which the carriage is licensed to carry)

or who shall ply for hire with any carriage or animal which shall at the time be unfit for public use

shall be liable for every such offence to a fine not exceeding fifty rupees, and in default of payment, to rigorous imprisonment for a period not exceeding two months.

Section 11—The Commissioner of Police may suspend for such period, as he thinks fit, the license of any carriage whenever it shall appear to him that such carriage, or any animal or harness used therewith, is unfit for public use.

This Act was in force primarily in the town of Madras, but might be extended to any other town or place in the Madras Presidency.

APPENDIX VII—contd.

(1)	(2)	(3)	(4)
II. ACTS AND BILL OF THE GOVERNOR OF MADRAS IN COUNCIL—contd.			
Madras Act III of 1879 —contd.	Hackney- carriages.	Section 28.—It shall be law- ful for any Magistrate, be- fore whom any driver shall be convicted of any offence under this Act, to revoke the license of such driver, or to suspend the same for such time as the Magistrate shall think proper....	
		Section 3.—The word “horse” shall include a mule or pony. (“Animal” is not defined).	
Madras Act Madras City III of 1888. Police.		Section 53.—Whoever cruel- ly beats, ill-treats or tortur- es any animal, or causes any animal to be cruelly beaten, ill-treated or tortured, shall be liable on conviction to fine not exceeding one hundred rupees, or to im- prisonment not exceeding three months, or to both.	This Act was in force in the “City of Madras”, which was defined to include all places within the local limits of the ordinary original juris- diction of the High Court of Judicature at Madras.
		Section 71.—Whoever, in any public street, road, thoroughfare or place of public resort, commits any of the following offences, shall be liable on convic- tion to fine not exceeding fifty rupees, or to impris- onment which may extend to one month:—	The Madras Towns Nui- sances Bill, 1889, will extend the provisions of Sections 53, 71, (ii), (xii) and 72 of Madras Act III of 1888 to areas beyond the City of Madras.
		(i) * * * * * Whoever by negligence or ill-usage in driving cattle causes any mis- chief or obstruction by such cattle;	
		(xii) * * * * * Whoever... sets on or urges any dog or other animal to attack, worry, or put in fear any person or cattle;	
		(xiv) * * * * * Whoever... wantonly frightens any horses.	
		Section 3.—“Cattle” includ- es horned cattle, horses, asses, mules, sheep, goats, swine, camels and elephants. (“Animal is not defined.)	
		Section 72.—Whoever is found... publicly fighting cocks or present as a	

APPENDIX VII—contd.

(1)	(2)	(3)	(4)
II. ACTS AND BILL OF THE GOVERNOR OF MADRAS IN COUNCIL— <i>contd.</i> Madras Act III of 1888 Madras City Police. — <i>contd.</i>		spectator of such. . . . cock-fighting, shall be liable on conviction to fine not exceeding fifty rupees, or to imprisonment not exceeding one month.	
		<i>Section 24</i> —Any police-officer may arrest without a warrant any person committing in his view any offence made punishable by this Act.	
		<i>Section 25</i> —Whoever commits an offence affecting the person or property of another, may, if his name and address be unknown, be apprehended by the person injured or in charge of the property concerned, or by any person acting in aid of such person. . . .	
The Madras Towns Nuisances Bill, 1889.	Towns Nuisances.	<i>Section 3</i> —Whoever in any public street, road, thoroughfare or place of public resort, commits any of the following offences, shall be liable on conviction to fine not exceeding fifty rupees, or to imprisonment of either description not exceeding eight days:—	This Bill when passed into Act, extended to all towns, in the Madras Presidency declared to be municipalities under Madras Act IV of 1884 (District Municipalities) or any other Act of the same nature for the time being in force. It was also capable of extension, by order of the Governor in Council to any other local area in the Presidency outside the limits of the town Madras.
		(2) Whoever, by negligence or ill-usage in driving cattle, causes any mischief or obstruction by such cattle :	
		(7) Whoever . . . sets on or urges any dog or other animal to attack, worry or put in fear any person or cattle:	
		(10) Whoever is found . . . publicly fighting cocks or taking part in suchcock-fighting.	
		<i>Section 5</i> —Whoever cruelly beats, ill-treats, (? or) tortures (? any animal) or drives, rides or otherwise uses any animal in an unfit state to be so driven, ridden or used or causes any animal to be cruelly beaten,	

APPENDIX VII—contd.

(1)	(2)	(3)	(4)
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II. ACTS AND BILL OF THE GOVERNOR OF MADRAS IN COUNCIL—*concl'd.*

ill-treated, (? or) tortured, or to be driven, ridden or used, when unfit to be driven, ridden or used, shall be liable on conviction to fine, not exceeding fifty rupees, or to imprisonment of either description not exceeding one month, or to both.

Section 8—Any police-officer may arrest without a warrant any person committing in his view any offence made punishable by this Act.

III. ACTS AND BILL OF THE GOVERNOR OF BOMBAY IN COUNCIL

Bombay
Act VI
of 1863.

Public Convey-
ances.

Section 15—Any licensee, driver or other attendant of any public conveyance who shall suffer or permit more passengers to be carried by the same than it is licensed to carry... shall be liable, on conviction before a Magistrate or Police, to a fine not exceeding fifty rupees, or, in default of payment of such fine, to simple imprisonment for a period not exceeding two months.

Section 32—Any police-officer or constable may arrest without a warrant any person committing in his view any offence against this Act.

Section 1—Every carriage with two or more wheels which shall be used for the purpose of plying for hire within the jurisdiction of the Commissioner of Police of Bombay, of whatever form or construction, or by whatever number of horses or other animals the same shall be drawn,... shall be deemed and taken to be a public land conveyance. (This section is virtually amended by Bombay Act V of 1887).

This Act applied primarily to the town, suburbs and harbour of Bombay. It was declared in force in Sindh and Aden by special Notifications and could be extended to any town or place in the Presidency of Bombay by an order of the Governor in Council. The Act had, upto the 31st December, 1885, been extended under section 34 to 18 towns and cantonments, 3 municipalities, 1 station and 2 roads in the Presidency of Bombay, and to Aden.

APPENDIX VII—contd.

(1)	(2)	(3)	(4)
III. ACTS AND BILL OF THE GOVERNOR OF BOMBAY IN COUNCIL— <i>contd.</i>			
Bombay Act III of 1886.	Gambling	Section 11—A Police officer may apprehend without warrant— * * * *	This Act was repealed by Bombay Act IV of 1887, but it still applied to Sindh, Aden and all cities and towns to which it had been extended by the Governor of Bombay in Council.
		any person setting any birds or animals to fight in any public street, place or thoroughfare situated within the limits aforesaid <i>i.e.</i> the limits of territory to which the Act applies), or any person there present aiding and abetting such public fighting of birds and animals, and such person.....shall be liable to a fine not exceeding fifty rupees, or to imprisonment for any term not exceeding one month.	
Bombay Act VII of 1867.	Bombay District Police.	Section 31.—In any town or other place in which there is a Magistrate resident, or in any town or other place, or (?) on, or close to, any public road, to which town, place or road the operation of this section shall be specially extended by Government by notification, any person who shall offend as follows, so as to cause obstruction, annoyance, risk, danger or damage to residents or passengers, shall, on conviction before a Magistrate, be liable to a fine not exceeding fifty rupees, or in default of payment, to imprisonment not exceeding eight days; and it shall be lawful for any police officer to take into custody without a warrant any person so offending within his view, that is to say:— (1) any person who wantonly and cruelly beats, ill-uses or tortures any animal. * * * *	This Act applied to the whole of the Bombay Presidency, including the Province of Sindh but excluding the City of Bombay. It was declared in force, under section 3 of the Scheduled Districts Act, 1874, in Perim and Peint. But section 31 was in operation only in— (1) places in which there was a Magistrate resident; and (2) towns, places and roads to which the section was specially extended by the Government of Bombay.
		Section 1—The word "cattle" shall, besides horned cattle, include elephants, camels, horses, asses, mules, sheep goats and swine. ("Animal" is not defined).	

APPENDIX VII—contd.

(1)	(2)	(3)	(4)
III. ACTS AND BILL OF THE GOVERNOR OF BOMBAY IN COUNCIL—contd.			
Bombay Act VIII of 1867.	Bombay Village Police.	<p><i>Section 16</i>—The Police-patel when and as long as he shall be empowered under section 15, clause 1, shall also have authority to punish by a fine not exceeding one rupee, or, in default of payment, by confinement in the village chaunri for a period not exceeding twelve hours, any person committing any of the nuisances or disorderly acts below described, and to forbid the continuance or repetition of such nuisances or acts, that is to say—</p> <p>(1) any person who wantonly or cruelly beats, ill-uses or tortures any animal;</p> <p style="text-align: center;">* * * *</p>	This Act applied to the Presidency of Bombay. It was declared, under section 3 of the Scheduled Districts Act, 1874, to be in force in Peint.
Bombay Act IV of 1887.	Gambling ..	<p><i>Section 12</i>—A Police officer may apprehend without warrant—</p> <p style="text-align: center;">* * *</p> <p>(b) any person setting any birds or animals to fight in any public street, place or thoroughfare;</p> <p>(c) any person there present aiding and abetting such public fighting of birds and animals.</p> <p>Any such person shall on conviction be punished with fine which may extend to fifty rupees, or with imprisonment which may extend to one month.</p> <p>And such Police officer may seize all birds and animals.. found in such public street, place or thoroughfare or on the person of those whom he shall so arrest, and the Magistrate may, on conviction of the offender, order.. such birds and animals to be sold and the proceeds forfeited.</p>	<p>This Act applied to—</p> <p>(1) the City of Bombay;</p> <p>(2) the island of Salsette;</p> <p>(3) all railway station-houses without the said city and island and all places not more than three miles distant from any part of such station-houses; and</p> <p>(4) any local area in the Presidency of Bombay to which it was extended by the Governor in Council.</p>
The Bombay District Police Bill, 1888.	Bombay District Police.	<p><i>Section 57</i>—Whoever, in any local area to which the Governor in Council by notification in the Bombay Government Gazette from time to time extends this section or any part thereof,</p> <p style="text-align: center;">* * *</p>	<p>This Bill when passed into Act, applied to the whole Presidency of Bombay, except the City of Bombay, Aden and its dependencies, and Perim.</p> <p style="text-align: right;">Section 57, however.</p>

APPENDIX VII—contd.

(1)	(2)	(3)	(4)
III. ACTS AND BILL OF THE GOVERNOR OF BOMBAY IN COUNCIL— <i>concl'd.</i>			
	(d) causes obstruction in any street or mischief by any misbehaviour, negligence or ill usage in the driving, management or care of any animal;		would only come into force in areas to which it was specially extended by the Governor in Council.
	(h).....sets on or urges a dog or other animal to attack, worry or put in fear any person or horse or other animal.		
	shall be punished with fine which may extend to fifty rupees.		
	Section 58—Whoever—		
	(b) cruelly beats, goads, overworks, ill-treats or tortures or causes or procures to be cruelly beaten, goaded, overworked, ill-treated or tortured, any animal,		
	shall be punished with imprisonment which may extend to one month, or with fine which may extend to one hundred rupees, or with both.		
	Section 69—It shall not be incumbent on the police to prosecute for an offence punishable under section 57-58...when such offence has not occasioned serious mischief and has been promptly desisted from on warning given.		
	Section 3.—.....		
	(e) "street" includes any highway and the way over any causeway, bridge, viaduct, arch, quay, or wharf and any road, lane, foot-way, square, court, alley or passage accessible to the public, whether a thoroughfare or not;		
	(f) "cattle" includes elephants, camels, horses, asses, mules, sheep, goats and swine.		
	("Animals" is not defined.)		

APPENDIX VII—contd.

(1)	(2)	(3)	(4)
IV. ACTS OF THE LIEUTENANT-GOVERNOR OF BENGAL IN COUNCIL			
Bengal Act II of 1866.	Police in Calcutta Suburbs.	<p><i>Section 40</i>—Whoever, within such limits as shall be from time to time defined by the Commissioner of Police with the sanction of the said Lieutenant-Governor, in any public street, road, thoroughfare, or place of public resort, shall commit any of the following offences, shall be liable to a fine not exceeding fifty rupees:—</p> <p style="text-align: center;">* * *</p> <p>(5) whoever, by negligence, or ill-usage in driving cattle, shall cause any mischief to be done by such cattle; or shall anywise misbehave himself in the driving, management or care of such cattle, so as to cause mischief or obstruction.</p> <p style="text-align: center;">* * *</p> <p><i>Section 43</i>—Any Police officer may arrest without a warrant any person committing in his view any offence against this Act, if the name and address of such person be unknown to such Police officer and cannot be ascertained by him.</p> <p><i>Section 44</i>—Whoever commits an offence on or with respect to the person or property of another, or, in committing an offence under this Act, injures or damages the person or property of another, may, if his name and address be unknown, be apprehended by the person injured, or by any person who may be using the property to which the injury may be done or by the servant of either of such persons, or by any person authorized by or acting in aid of him.....</p> <p><i>Section 48</i>—It shall be lawful for the Magistrate, when it shall appear to him that the fine cannot be realised....to sentence the offender to imprisonment in lieu of any</p>	<p>This Act applied to the suburbs of Calcutta as defined by the Lieutenant-Governor of Bengal.</p>

APPENDIX VII—contd.

(1)	(2)	(3)	(4)
IV. ACTS OF THE LIEUTENANT-GOVERNOR OF BENGAL IN COUNCIL—contd.			
		fine to which such offender is liable under this Act, and the term of such imprisonment shall be fixed in accordance with the scale laid down in section 67 of the Indian Penal Code.	
		<i>Section 51</i> —...the word "cattle" shall, besides horned cattle, include horses, asses, mules, sheep, goats and swine.	
Bengal Act IV Calcutta Police of 1866.		<i>Section 66</i> —Whoever, within such limits as shall be from time to time defined by the Commissioner of Police with the sanction of the said Lieutenant Governor, in any public street, road, thoroughfare or place of public resort, commits any of the following offences, shall be liable, on summary conviction before a Magistrate, to a fine not exceeding fifty rupees.	This Act applied to the town of Calcutta.
		* * * (5) Whoever, by negligence or ill-usage in driving cattle, causes any mischief to be done by such cattle, or in anywise misbehaves himself in the driving, management or care of such cattle, so as to cause mischief or obstruction; * * *	
		<i>Section 72</i> —(as amended by Bengal Act II of 1886, s. 4). Any Police officer may arrest without a warrant any person committing in his view any of the offences described or referred to in this Act, if the name and address of such person be unknown to such Police officer and cannot be ascertained by him then and there.	
		<i>Section 74</i> —Whoever commits an offence on or with respect to the person or property of another, or, in committing any of the offences described or referred to in this Act, injures or damages the person or property of another, may, if his name and address be unknown, be apprehended by	

APPENDIX VII—contd.

(1)	(2)	(3)	(4)
IV. ACTS OF THE LIEUTENANT-GOVERNOR OF BENGAL IN COUNCIL—contd.			
		<p>the person injured, or by any person who may be using the property to which the injury may be done, or by the servant of either of such persons, or by any person authorised by or acting in aid of him</p> <p>.....</p>	
		Section 3—	
		<p>The word “cattle” shall, besides horned cattle, include horses, asses, mules, sheep, goats, and swine...</p>	
Bengal Act V of 1866.	Hackney carriages.	Section 33—Every driver of a hackney carriage—	<p>This Act applied primarily to the town and suburbs of Calcutta, but it might be extended to any other town or place in Bengal. The Act was extended to thirty-six places, being either towns, municipalities, cantonments or roads, in Bengal.</p>
		<p style="text-align: center;">* * * *</p> <p>who shall carry more than such number of passengers (i.e., the number marked on the carriage or specified in the register of hackney carriages), or</p> <p style="text-align: center;">* * * *</p>	
		<p>who shall ply for hire with any carriage or horse which shall be at the time unfit for public use, shall be liable to a penalty not exceeding ten rupees, and, in default of payment, or rigorous imprisonment for a period not exceeding one month.</p>	
		Section 53—...the term “horse” shall include mules and ponies.	
		Section 27—It shall be lawful for any Magistrate before whom any driver shall be convicted of any offence, whether under this Act, or under any other Act, to revoke the license of such driver or to suspend the same for such time as the Magistrate shall think proper.	
Bengal Act II of 1867.	Gambling	Section 11—A Police officer may apprehend without warrant any person setting any birds or animals to fight in	<p>This Act was declared in force—</p> <p>(1) in the Sonthal Parganas and</p>

APPENDIX VII—contd.

(1)	(2)	(3)	(4)
IV. ACTS OF THE LIEUTENANT-GOVERNOR OF BENGAL IN COUNCIL—contd.			
	any public market, fair, street, place or thoroughfare situated within the limits aforesaid (<i>i. e.</i> , the limits to which the Act applies), or any person there present aiding and abetting such public fighting of birds and animals.		(2) in the districts of Hazaribagh, Lohardaga and Manbhum, and Pargana, Dhalbhum and the Kolhan in the district of Singhbhum.
	Such person....shall be liable to a fine not exceeding fifty rupees, or to imprisonment, either simple or rigorous, for any term not exceeding one calendar month, and		Section 11 applied primarily to the town and suburbs of Calcutta. It could be extended by the Lieutenant-Governor to any other city, town or place in Bengal.
	such police officer may seize all birds and animals....found in such public place or on the person of those whom he shall so arrest, and		
	the Magistrate may, on conviction of the offender, order, ....such birds and animals to be sold.		
Bengal Act I of 1869. Cruelty to animals.	to	Section 2—Every person who shall cruelly and wantonly beat, ill-treat, abuse, torture, over-drive or over-load, or cause to be beaten, ill-treated, abused, tortured, over-driven or over laden, any animal, shall be liable to a fine which may extend to one hundred rupees.	This Act applied primarily to Calcutta and its suburbs, but it could be extended by the Lieutenant-Governor to any city, town, station, bazar, cantonment village, district or portion of a district in Bengal. It was extended, under section 10, to 11 towns, 21 municipalities, 128 villages, 2 subdivisions and 1 district (Darjeeling) in Bengal, 13 places (undescribed) in the district of Pubna, and the limits and boundaries of the Port Commissioners on the Howrah side of the river Hooghly.
		Section 3—Every person who shall incite any quadrupeds or birds, whether domestic or wild, to fight, or shall bait any animal or shall aid or shall abet, any one in so doing, shall be liable to a fine which may extend to fifty rupees.	The Act was declared in force in Assam, under section 3 of the Scheduled Districts Act, 1874.

APPENDIX VII—contd.

(1)	(2)	(3)	(4)
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IV. ACTS OF THE LIEUTENANT-GOVERNOR OF BENGAL IN COUNCIL—contd.

Section 4—Every person who shall wilfully and knowingly permit any animal, of which he may be owner, to go at large in any public street, road or thoroughfare, while such animal is affected with contagious or infectious disease* or shall wilfully permit any diseased or disabled animal, of which he may be owner, to die in any public street, road, or thoroughfare, shall be liable to a fine which may extend to one hundred rupees.

Section 5—Every person who shall employ or cause to be employed in any work or labour any animal which, in consequence of any disease, infirmity, wounds or sores, is unfit to be so employed shall be liable to a fine which may extend to fifty rupees.

Section 1—The word “animal” shall be taken to mean any domestic or tamed quadruped, or any domestic or tamed bird.

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Bengal Act III of 1869. Arrest for cruelty to animals.

Section 1—Every police officer may arrest without a warrant any person committing in his view any offence against the said Act I of 1869.

This Act applied primarily to Calcutta and its suburbs, but it could be extended by the Lieutenant Governor to any town, suburb, district or tract of country in Bengal. It was extended, under section 3, to 9 of the towns, the 21 municipalities, the district Darjeeling and the 13 places (undescribed) in the district Pubna to which Bengal Act I of 1869 was extended; also to the limits and boundaries

*There are other enactments relating to animals affected with contagious or infectious disease, e.g., the Glanders and Farcy Act (XIV of 1879) and the Bengal Contagious Diseases (Animals) Act (Bengal Act VIII of 1880); but their object is to prevent the spread of disease, not to prevent the cruelty of working diseased animals. Such enactments have not been included in this statement.

APPENDIX VII—contd.

(1)	(2)	(3)	(4)
IV. ACTS OF THE LIEUTENANT-GOVERNOR OF BENGAL IN COUNCIL—concl'd.			
V. BILL OF THE LIEUTENANT-GOVERNOR OF THE NORTH WESTERN PROVINCES AND OUDH IN COUNCIL.			
The N.W.P. Cruelty to Animals Bill, 1887.	Cruelty to animals.	<p><i>Section 2.</i>—Every person who shall cruelly and wantonly beat, ill-treat, abuse, torture, over-drive or overload, or cause to be beaten, ill-treated abused, tortured, over-driven or over-laden, any animal, shall be liable to a fine which may extend to one hundred rupees.</p>	<p>of the Port Commissioners on the Howrah side of the river Hooghly.</p> <p>The Act was declared in force in Assam under section 3 of the Scheduled Districts Act, 1874.</p> <p>This Bill, when passed into Act, extended to the whole of the North-Western Provinces and Oudh.</p>
		<p><i>Section 3.</i>—Every person who shall incite any quadrupeds or birds to fight or shall bait any animal, or shall abet any one in so doing shall be liable to a fine which may extend to fifty rupees.</p>	
		<p><i>Section 4.</i>—Every person who shall wilfully and knowingly permit any animal of which he may be owner to go at large in any public street, road or thoroughfare while such animal is affected with a contagious or infectious disease* or shall wilfully permit any diseased or disabled animal of which he may be owner to die in any public street, road or thoroughfare shall be liable to a fine which may extend to one hundred rupees.</p>	
		<p><i>Section 5.</i>—Every person who shall employ or cause to be employed in any work or labour any animal which, in consequence of any disease, infirmity, wounds or sores, is unfit to be so employed shall be liable to a fine which may extend to fifty rupees.</p>	

*See footnote to Bengal Act 1 of 1869, on page 321.

APPENDIX VII—concl'd.

(1)	(2)	(3)	(4)
V. BILL OF THE LIEUTENANT-GOVERNOR OF THE NORTH WESTERN PROVINCES AND OUDH IN COUNCIL—concl'd.			
		<p><i>Section 7</i>—It shall be the duty of every police officer to prevent the commission of an offence against the provisions of this Act.</p>	
		<p><i>Section 1</i>—In this Act, unless there be something repugnant in the subject or context, "animal" includes birds and quadrupeds of every description.</p>	



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APPENDIX VIII

ACT NO. XI OF 1890¹

(21st March, 1890)

[As modified up to the 1st April, 1953]

AN ACT FOR THE PREVENTION OF CRUELTY TO ANIMALS

WHEREAS it is expedient to make further provision for the prevention of cruelty to animals; it is hereby enacted as follows:—

1. *Title, extent and commencement, and Supersession of other enactments.*—

(1) This Act may be called the Prevention of Cruelty to Animals' Act², 1890.

(2) This section extends to ³(the whole of India except Part B States); and the ⁴(State Government) may, by notification in the official Gazette, extend, on and from a date to be specified in the notification, the whole or any part of the rest of this Act to any such local area as it thinks fit.

(3) When any part of this Act has been extended under sub-section (2) to a local area, the ⁴(State Government) may, by notification in the official Gazette, direct at the whole or any part of any other enactment in force in the local area for the prevention of cruelty to animals shall, except as regards anything done or any offence committed or any fine or penalty incurred or any proceedings commenced, cease to have effect in the local area, and such whole or part shall cease to have effect accordingly until the ⁴(State Government) by a like notification, otherwise directs.

(4) The ³(State Government) may cancel or vary a notification under sub-section (2) or sub-section (3).

2. *Definitions.*—In this Act, unless there is something repugnant in the subject or context,—

⁵(1) "animal" means any domestic or captured animal;

(2) "street" includes any way, road, lane, square, court, alley, passage or open space, whether a thoroughfare or not, to which the public have access.

¹ For Statement of Objects and Reasons, see *Gazette of India*, 1890, Pt. V, p. 4; for Report of the Select Committee, see *ibid*, p. 95, and for Proceedings in Council, see *ibid*, Pt. VI., pp. 4, 10 and 62.

² The Act has been declared in force in the Sonthal Parganas by s. 3 of the Sonthal Parganas Settlement Regulation (3 of 1878).

The portions of s. 2 [except sub-section (2)], section 5, so much of s. 8 as relates to s. 5 and ss. 9 and 11 of this Act have been declared in force in the Angul District by s. 3 and Sch. of the Angul Laws Regulation, 1936 (5 of 1936) and in the Khondmals District by s. 3 and Sch. of the Khondmals Laws Regulation, 1936 (4 of 1936).

The Act has been extended to Ajmer Merwara, see Notification No. 598-C/59-A/38, dated the 19th January, 1939, *Gazette of India*, 1939, Pt. II-A., p. 88.

The Act has been extended to Berar by the Berar Laws Act, 1941 (4 of 1941), and amended in its application to Madras by Madras Act 20 of 1942; and

Bombay by Bombay Acts 13 of 1922, 9 of 1923, 2 of 1928, 3 of 1933 and 28 of 1946.

³ Subs. by the A.O. 1950 for "all the Provinces of India".

⁴ Subs. *ibid*, for "Provincial Government".

⁵ The word "and" was omitted by s. 2 of Act 25 of 1938.

¹[(3) Phooka or doom dev includes any process of introducing air or any substance into the female organ of a milch animal with the object of drawing off from the animal any section of milk.]

²[3. *Penalty for cruelty to animals and for sale of animals killed with unnecessary cruelty.*—If any person:—

- (a) overdrives, beats, or otherwise treats any animal so as to subject it to unnecessary pain or suffering; or
- (b) binds, keeps, carries or consigns for carriage any animal in such manner or position as to subject it to unnecessary pain or suffering; or
- (c) offers for sale or without reasonable cause has in his possession any live animal which is suffering pain by reason of mutilation, starvation, thirst, over-crowding or other ill-treatment; or
- (d) offers for sale any dead animal or part of a dead animal which he has reason to believe has been killed in an unnecessarily cruel manner; or
- (e) without reasonable cause abandons any animal in circumstances which render it likely that it will suffer pain by reason of starvation or thirst,

he shall be punished, in the case of a first offence, with fine which may extend to fifty rupees, or with imprisonment for a term which may extend to one month and, in the case of a second or subsequent offence committed within three years of the previous offence, with fine which may extend to one hundred rupees, or with imprisonment for a term which may extend to three months, or with both.]

³[3A. *Penalty for overloading animals.*—(1) If any person overloads any animal, he shall be punished with fine which may extend to fifty rupees, or with imprisonment for a term which may extend to one month.

(2) If the owner of any animal, or any person who, either as a trader, carrier or contractor or by virtue of his employment by a trader, carrier or contractor, is in possession of, or in control of the loading of, any animal permits the overloading of such animal, he shall be punished with fine which may extend to one hundred rupees.]

⁴[4. *Penalty for practising Phooka.*—(1) If any person performs upon any cow or other milch animal the operation called phooka or doom dev, or permits such operation to be performed upon any such animal in his possession or under his control, he shall be punished with fine which may extend to five hundred rupees, or with imprisonment for a term which may extend to two years, or with both, and the animal on which the operation was performed shall be forfeited to Government:

Provided that in the case of a second or subsequent conviction of a person under this section he shall be punished with fine which may extend to five hundred rupees and with imprisonment for a term which may extend to two years.

(2) A court may order payment out of any fine imposed under this section of an amount not exceeding one-tenth of the fine to any person other than a police officer or officer of a society or institution concerned with the prevention of cruelty to animals who has given information leading to the conviction.]

¹ Added, *ibid.*

² Subs. by s. 3, *ibid.*

³ Ins. by s. 4, *ibid.*

⁴ Subs. by Act 25 of 1938, s. 5.

5. *Penalty for killing animals with unnecessary cruelty anywhere.*—If any person kills any animal in an unnecessarily cruel manner, he shall be punished with fine which may extend to two hundred rupees, or with imprisonment for a term which may extend to six months, or with both.

¹(5A. *Penalty for being in possession of the skin of a goat killed with unnecessary cruelty.*—If any person has in his possession the skin of a goat, and has reason to believe that the goat has been killed in an unnecessarily cruel manner, he shall be punished with fine which may extend to one hundred rupees, or with imprisonment which may extend to three months, or with both, and the skin shall be confiscated.)

¹(5B. *Presumption as to possession of the skin of a goat.*—If any person is charged with the offence of killing a goat contrary to the provisions of section 5, or with an offence punishable under section 5A, and it is proved that such person had in his possession, at the time the offence was alleged to have been committed, the skin of a goat with any part of the skin of the head attached thereto, it shall be presumed, until the contrary be proved, that such goat was killed in an unnecessarily cruel manner, and that the person in possession of such skin had reason so to believe.)

6. *Penalty for employing anywhere animals unfit for labour.*—²If any person employs in any work or labour any animal which by reason of any disease, infirmity, wound, sore or other cause is unfit to be so employed, or permits any such unfit animal in his possession or under his control to be so employed, he shall be punished with fine which may extend to one hundred rupees.³

* * * * *

⁴[6A. *Interpretation.*—For the purposes of sections 3A and 6, an owner or other person in possession or control of an animal shall be deemed to have permitted an offence if he has failed to exercise reasonable care and supervision with a view to the prevention of such offence, and for the purposes of section 4, if he fails to prove that he has exercised such care and supervision.

6B. *Treatment and care of animals.*—(1) The (State) Government may, by general or special order, appoint infirmaries for the treatment and care of animals in respect of which offences against this Act have been committed, and may authorise the detention therein of any animal pending its production before a Magistrate.

(2) The Magistrate before whom a prosecution for an offence against this Act has been instituted may direct that the animal concerned shall be treated and cared for in an infirmary, until it is fit to perform its usual work or is otherwise fit for discharge, or that it shall be sent to a pinjrapole, or if the Veterinary Officer-in-charge of the area in which the animal is found or such other Veterinary Officer as may be authorised in this behalf by rules made under section 15 certifies that it is incurable or cannot be removed without cruelty, that it shall be destroyed.

(3) An animal sent for care and treatment to an infirmary shall not, unless the Magistrate directs that it shall be sent to a pinjrapole or that it shall be destroyed, be released from such place except upon a certificate of its fitness for discharge issued by the Veterinary Officer-in-charge of the area in which the infirmary is situated or such other Veterinary Officer as may be authorised in this behalf by rules made under section 15.

¹ Ins. by Act 14 of 1917, s. 2.

² The figure and brackets "(1)" omitted by Act 25 of 1938, s. 6.

³ Sub-sections (2) to (6) were omitted by Act 25 of 1938, s. 6.

⁴ Section 6A, 6B and 6C inserted by s. 7, *ibid.*

⁵ Subs. by the A.O. 1950 for "Provincial".

(4) The cost of transporting an animal to an infirmary or pinjrapole, and of its maintenance and treatment in an infirmary, shall be payable by the owner of the animal in accordance with a scale of rates to be prescribed by the District Magistrate or, in presidency-towns, by the Commissioner of Police:

Provided that when the Magistrate so orders, on account of the poverty of the owner of the animal, no charge shall be payable for the treatment of the animal.

(5) If the owner refuses or neglects to pay such cost or to remove the animal within such time as a Magistrate may prescribe, the Magistrate may direct that the animal be sold and that the proceeds of the sale be applied to the payment of such cost.

(6) The surplus, if any, of the proceeds of such sale shall, on application made by the owner within two months from the date of the sale, be paid to him.

16C. Penalty for baiting or inciting animals to fight.—If any person—

- (a) incites any animal to fight; or
- (b) baits any animal; or
- (c) aids or abets any such incitement or baiting;

he shall be punished with fine which may extend to fifty rupees.

Exception.—It shall not be an offence under this section to incite animals to fight if such fighting is not likely to cause injury or suffering to such animals and all reasonable precautions are taken to prevent injury or suffering from being so caused.]

7. Penalty for permitting diseased animals to go at large or to die in public places.—If any person wilfully permits any animal of which he is the owner ²(or is in charge) to go at large in any street while the animal is affected with contagious or infectious disease, or without reasonable excuse permits any diseased or disabled animal of which he is the owner (or is in charge) to die in any street, he shall be punished with fine which may extend to one hundred rupees ³(where he is the owner of the animal, or to fifty rupees where he is in charge of but not the owner of the animal).

4(7A. Special power of search and seizure in respect of certain offences.— ⁵[(1)] If a police-officer, not below the rank of sub-inspector, has reason to believe that an offence under section 5, in respect of a goat, is being or is about to be, or has been committed in any place, or that any person has in his possession the skin of a goat with any part of the skin of the head attached thereto, he may enter and search such place or any place in which he has reason to believe any such skin to be, and may seize any such skin and any article or thing used or intended to be used in the commission of such offence.)

⁶[(2) If a police officer, not below the rank of sub-inspector, or any person specially authorised by the ⁷(State) Government in this behalf has reason to believe that phooka or doom dev has just been or is being performed on any animal within the limits of his jurisdiction, he may enter any place in which he has reason to believe such animal to be, and may seize the animal and produce it for examination by the Veterinary Officer-in-charge of the area in which the animal is seized.]

¹ See footnote 3 on pre-page.

² *Ins.* by Act 25 of 1938, s. 8.

³ Added, *ibid.*

⁴ *Ins.* by Act 14 of 1917, s. 3.

⁵ Original section 7A was renumbered as sub-section (1) of that section by s. 9 of Act 25 of 1938.

⁶ Added by Act 25 of 1938, s. 9.

⁷ Subs. by the A.O. 1950 for "Provincial".

8. *Search warrants.*—(1) If a Magistrate of the first ¹(or second class, Presidency Magistrate), Sub-divisional Magistrate, Commissioner of Police or District Superintendent of Police, upon information in writing and after such inquiry as he thinks necessary, has reason to believe that an offence ²(against this Act) is being or is about to be or has been committed in any place, he may either himself enter and search or by his warrant authorise any police-officer ³(not below the rank of sub-inspector) to enter and search the place.

(2) The provisions of the ⁴Code of Criminal Procedure, 1882 (X of 1882), relating to searches under that Code shall, so far as those provisions can be made applicable, apply to a search under sub-section (1) ⁵(or under section 7A).

9. *Limitation for prosecutions.*—A prosecution for an offence against this Act shall not be instituted after the expiration of three months from the date of the commission of the offence.

10. *Destruction of suffering animals.*—⁶[(1)] When any Magistrate, Commissioner of Police or District Superintendent of Police has reason to believe that an offence against this Act has been committed in respect of any animal, he may direct the immediate destruction of the animal if in his opinion sufferings are such as to render such a direction proper.

⁷[(2) Any police officer above the rank of a constable who finds any animal so diseased, or so severely injured, or in such a physical condition that it cannot, in his opinion, be removed without cruelty, may, if the owner is absent or refuses to consent to the destruction of the animal, forthwith summon the Veterinary Officer-in-charge of the area in which the animal is found and if the Veterinary Officer certifies that the animal is mortally injured, or so severely injured or in such a physical condition that its destruction is desirable, the police officer may, after obtaining orders from a Magistrate, destroy the animal or cause it to be destroyed.]

11. *Saving with respect to religious rites and usages.*—Nothing in this Act shall render it an offence to kill any animal in a manner required by the religion or religious rites and usages of any race, sect, tribe or class.

12. *Provision supplementary to section 1 with respect to extent of Act.*—Notwithstanding anything in section 1, sections ⁸, (4 and 13, sections 9 and 10, and sections 6A, 7A, 8 and 15 so far as they relate to offences under section 4) shall extend to every local area in which any section of this Act constituting an offence is for the time being in force.

⁹(13. *Offence under section 4 to be cognizable.*—Notwithstanding anything contained in the Code of Criminal Procedure, 1889 (V of 1898), an offence punishable under section 4 shall be a cognizable offence within the meaning of that Code.

⁹14. *General power of seizure for examination.*—Any police officer above the rank of a constable or any person authorised by the ¹⁰(State) Government in this behalf, who has reason to believe that an offence against this Act has

¹Subs. by Act 25 of 1938, s. 10, for "class".

²Subs., *ibid*, for "against section 4, section 5 or section 6".

³Subs., *ibid*, for "above the rank of a constable".

⁴See now the Code of Criminal Procedure, 1898 (V of 1898).

⁵Added by Act 14 of 1917, s. 4.

⁶Original section 10 was renumbered as sub-section (1) of that section by Act 25 of 1938, s. 11.

⁷Added, *ibid*.

⁸Subs. by Act 25 of 1938, s. 12 for "9, 10 and 11".

⁹Sections 13 to 17 were added, *ibid*, s. 13.

¹⁰Subs. by the A.O. 1950 for "Provincial".

been or is being committed in respect of any animal, may, if in his opinion the circumstances so require, seize the animal and produce the same for examination by the nearest Magistrate or by such Veterinary Officer as may be designated in this behalf by rules made under section 15; and such police officer or authorised person may, when seizing the animal, require the person incharge thereof to accompany it to the place of examination.

15. *Power to make rules.*—(1) The (State) Government may, by notification in the Official Gazette, and subject to the condition of previous publication, make rules to carry out the purposes of this Act.

(2) In particular, and without prejudice to the generality of the foregoing power, the (State) Government may make rules—

- (a) prescribing the maximum weight of loads to be carried or drawn by any animal;
- (b) prescribing conditions to prevent the over-crowding of animals;
- (c) prescribing the period during which, and the hours between which, buffaloes shall not be used for draught purposes;
- (d) prescribing the purposes to which fines realized under this Act may be applied, including such purposes as the maintenance of infirmaries, *pinjrapoles*, and veterinary hospitals;
- (e) prohibiting the use of any bit or harness involving cruelty;
- (f) requiring persons carrying on the business of a farrier to be licensed and registered;
- (g) requiring persons owning, or incharge of premises in which animals are kept or milked to register such premises, to comply with prescribed conditions as to the boundary walls or surroundings of such premises, to permit their inspection for the purpose of ascertaining whether any offence against section 4 is being or has been, committed therein, and to expose in such premises copies of section 4 of this Act in a language or languages commonly understood in the locality; and
- (h) prescribing the manner in which cattle may be impounded in any place appointed for the purpose, so as to secure the provision of adequate space, food and water.

(3) If any person contravenes, or abets the contravention of, any rule made under this section, he shall be punished with fine which may extend to fifty rupees.

16. *Persons authorised under section 14 to be public servants.*—Every person authorised by the (State) Government under section 14 shall be deemed to be a public servant within the meaning of section 21 of the Indian Penal Code (XLV of 1860).

17. *Indemnity.*—No suit, prosecution or other legal proceeding shall lie against any person who is, or who is deemed to be, a public servant within the meaning of section 21 of the Indian Penal Code (XLV of 1860) in respect of anything in good faith done or intended to be done under this Act).

1. Section 13 to 17 were added, *ibid.* s. 13.

2. Subs. by the A.O. 1950 for "Provincial".

APPENDIX IX

LIST OF THE EXISTING LAW RULES, ETC., FOR THE PREVENTION OF CRUELTY TO ANIMALS IN THE STATES.

Name of the State (1)	Existing Laws, Rules, etc., for the Prevention of Cruelty to Animals. (2)
PART 'A' STATES—	
1. Andhra	<ol style="list-style-type: none"> 1. Prevention of Cruelty to Animals Act, 1890. 2. General Rules to regulate the pursuit of Game in Reserved Forests of Andhra State. 3. Madras Animals and Birds Sacrifices Prohibition Act, 1950. 4. Government Order under the Defence of India Rules, prohibiting slaughter of useful cattle (as in Madras).
2. Assam	<ol style="list-style-type: none"> 1. Assam Cattle Preservation Act, 1950 (Not yet enforced).
3. Bihar	<ol style="list-style-type: none"> 1. Prevention of Cruelty to Animals Act, 1890. 2. Bihar and Orissa Government Reserve Forests Shooting Rules, 1930. 3. The Bihar Preservation and Improvement of Animals Act, 1955.
4. Bombay	<ol style="list-style-type: none"> 1. Prevention of Cruelty to Animals Act, 1890, as amended by Bombay Act No. XXVIII of 1946. 2. Prevention of Cruelty to Animals Rules, 1953. 3. The Bombay Police Act, 1951. 4. The Bombay Wild Animals and Wild Birds Protection Act, 1951. 5. Bombay Animals Preservation Act, 1954. 6. The Bombay Municipal Corporation Act, 1949. 7. The Bombay Animal Contagious Diseases (Control) Act, 1948. 8. The Bombay Live-stock Improvement Act, 1933. 9. The Bombay Live-stock Improvement (Amendment) Act, 1954. 10. The Cattle-treasspass Act, 1871 (as amended).
5. Madhya Pradesh ..	<ol style="list-style-type: none"> 1. The Prevention of Cruelty to Animals (Amendment) Act 1938. 2. Central Provinces and Berar Prevention of Cruelty to Animals Rules, 1948. 3. The Central Provinces Game Act, 1935. 4. The Central Provinces Game (Amendment) Act, 1937.

APPENDIX IX—contd.

(1)	(2)
Part 'A' States— <i>contd.</i>	
5. Madhya Pradesh — <i>contd</i>	5. The Central Provinces Game (Amendment) Act, 1939. 6. The Central Provinces and Berar Game Rules, 1942. 7. The Slaughter of Animals Act, 1915. 8. The Central Provinces and Berar Animal Preservation Act, 1949 as amended in 1951.
6. Madras	1. Prevention of Cruelty to Animals Act, 1890, as modified up to the 1st April, 1953. 2. The Madras City Police Town Nuisances and Prevention of Cruelty to Animals (Amendment) Act, 1952. 3. The Madras Wild Elephants Preservation Act, 1873. 4. The Madras Forest Act, 1882. 5. General rules to regulate the pursuit of game in reserved forests issued under section 21(h) of the Madras Forest Act, 1882. 6. General rules to regulate the pursuit of game in reserved lands under Section 26 (f) of the Madras Forest Act, 1882. 7. Special Rules to regulate the pursuit of game in the Nilgiris. 8. Special rules to regulate the pursuit of game on the Palni Hills of Madurai District. 9. Special rules to regulate the pursuit of game in reserved and unreserved lands in Coimbatore North and Kollegal Forest Division. 10. Rules to prohibit hunting etc. within the limits of the Madumalai Wild Life Sanctuary in the Nilgiris. 11. Madras Animals and Birds Sacrifices Prohibition Act, 1950. 12. Government Order under the Defence of India Rules, prohibiting the slaughter of useful cattle. 13. Memorandum No. 8351-E/39-17, dated 15-7-1940 regarding maximum weight to be carried or drawn by animals—prescribing over-loading. 14. Government Order No. Ms. 2048 (PH), dated 26-10-1931, Government Order No. Ms. 1828 (PH), dated 2-5-1940 regarding destruction of dogs and pigs by humane method by the use of an "Electrocutor". 15. L. Dis. 25178/40 C. A., dated 30-7-1940 of the Inspector of Municipal Councils and Local Boards—regarding the ways of minimising the cruelty to bullocks employed in country oil-mills etc.
7. Orissa	1. Prevention of Cruelty to Animals Act, 1890 as amended by Act XXV of 1938.

APPENDIX IX—contd.

(1)	(2)
PART 'A' STATES—concl'd.	
8. Punjab	<ol style="list-style-type: none"> 1. Act No. XXV of 1938, incorporated with the Prevention of Cruelty to Animals Act, 1890. 2. Rules under Section 15 of the Prevention of Cruelty to Animals Act, 1890 (as modified upto the 1st July, 1941). 3. Karnar Prevention of Cruelty to Animals Rules, 1952. 4. The Punjab Wild Birds and Wild Animals Protection Act, 1933. 5. The Punjab Prohibition of Cow Slaughter Bill, 1955.
9. Uttar Pradesh ..	<ol style="list-style-type: none"> 1. The United Provinces Prevention of Cruelty to Animals Rules, 1942 framed under the Prevention of Cruelty to Animals Act, 1890. 2. The Wild Birds and Animals Protection Act, 1912. 3. The Wild Birds and Animals Protection (U. P. Amendment) Act, 1934. 4. Rules controlling Tiger-shooting in Reserved Forests. 5. The Uttar Pradesh National Parks Act, 1935. 6. Forest Department Shooting Rules. 7. U. P. Prevention of Cow Slaughter Act, 1955.
10. West Bengal ..	<ol style="list-style-type: none"> 1. Bengal Cruelty to Animals Act, 1920. 2. The Elephant Preservation (Bengal Amendment) Act, 1932. 3. The Bengal Rhineers Preservation Act, 1932. 4. Rules to regulate Hunting, Shooting, Fishing etc. within the Reserved and Protected Forests in Bengal, 1943. 5. The West Bengal Animal Slaughter Control Act, 1950 (enforced in 14 municipalities from 1-1-1952).
PART 'B' STATES—	
11. Hyderabad ..	<ol style="list-style-type: none"> 1. Provention of Cruelty to Animals Act, 1313 F. 2. Hyderabad Game Regulations, 1364F. 3. A Farman of the H. E. H. The Nizam Prohibiting Cow and Camel Slaughter at the time of Bakri Idd. 4. Hackney Carriages Rules. 5. Prohibition of Cock-fights. 6. Hyderabad Slaughter of Animals Act, 1950, (enforced from August, 1952).

APPENDIX IX—contd.

(1)	(2)
PART 'B' STATES—contd.	
12. Jammu & Kashmir	<ol style="list-style-type: none"> 1. Prevention of Cruelty to Animals Regulation No XIII of 1990 Samvat. 2. Prevention of Cruelty to Animals Act, 1998. Samvat.
13. Madhya Bharat ..	<ol style="list-style-type: none"> 1. Prevention of Cruelty to Animals Act, 1949. 2. Madhya Bharat Wild Birds and Animals Protection Act, 1952. 3. Madhya Bharat Game Act, 1952. 4. Madhya Bharat Games Rules, 1954. 5. Shooting Rules under Section 26 (1) and Section 32 (1) and Section 76 (1) of the Madhya Bharat Forest Act. 6. The Madhya Bharat Shooting Rules, 1954. 7. Madhya Bharat National Parks Act. 8. Act for the Protection of Animals Useful to Agriculture, 1949. (Original Act in Hindi). 9. Pashu Rakshan Vidhan, Samvat, 2006.
14. Mysore	<ol style="list-style-type: none"> 1. Regulation No. 1 of 1925 for the Prevention of Cruelty to Animals. 2. Police Regulations V of 1908. 3. Mysore Act of 1895. 4. The Mysore Prevention of Cow Slaughter Act, 1948. 5. The Mysore Prevention of Animals Sacrifices Act, 1948. 6. Rules framed by the Mysore City Municipal Council under Section 4 of Regulation VII of 1911 to regulate and control Public Conveyances.
15. Pepsu	<ol style="list-style-type: none"> 1. Section 33 of the Patiala Police Act, 1985 (B.K.). 2. Preservation of Fauna of Patiala Act, 1996 (B.K.). 3. Patiala Branded Bulls Act, 1994 (B.K.). 4. Patiala Penal Code (prohibiting the slaughter of ox, bull, cow and the young of cow).
16. Rajasthan	<ol style="list-style-type: none"> The Rajasthan Prohibition of the Slaughter of Animals Act, 1950.
17. Saurashtra ..	<ol style="list-style-type: none"> 1. Prevention of Cruelty to Animals Act, 1890. 2. Saurashtra Wild Animals and Wild Birds Protection Act, 1952. 3. Saurashtra Wild Animals and Wild Birds Protection (Amendment) Act, 1954.

APPENDIX IX—contd.

(1)	(2)
PART 'B' STATES—contd.	
17. Saurashtra— <i>contd.</i>	4. Bombay Animals Preservation Act, 1948 has been enforced from November, 1952.. 5. The Saurashtra Animals Preservation Bill, 1956.*
18. Travancore-Cochin	1. Prevention of Cruelty to Animals Act, 1904 (Travancore State). 2. Prevention of Cruelty to Animals Act, 1920 (Cochin State). 3. Travancore-Cochin Animals and Birds Sacrifices Prohibition Act, 1953. 4. Pre-integration Order of Travancore as well as Cochin States, prohibiting the slaughter of useful cattle.
PART 'C' STATES.	
19. Ajmer	1. Prevention of Cruelty to Animals Rules, Ajmer-Merwara, 1939. 2. Wild Birds and Animals Protection (Ajmer Amendment) Act, 1954. 3. Rules regulating Hunting, Shooting and the Setting of Traps or Snares in the State Forests of Ajmer-Merwara, 1915. 4. Ajmer-Merwara Cattle (Slaughter) Control Rules, 1947. 5. Ajmer-Merwara Sheep (Slaughter) Control Rules, 1948. 6. Ajmer Prohibition of Slaughter of certain Animals Act, 1954.
20. Bhopal	1. Prevention of Cruelty to Animals Act, 1890 [extended to the State by the Merged States (Laws) Act, 1949]. 2. Bhopal Animals Preservation Act, 1954.
21. Coorg	1. Rules under the Indian Forest Act, 1927 and the Elephant ^s Preservation Act, 1899. 2. Wild Elephants Shooting Rules, Coorg, 1955. 3. Rules for the Control of Hunting, Shooting and Fishing in the Reserved Forests of Coorg State, 1955.
22. Delhi	Prevention of Cruelty to Animals Act, of 1890, as amended in 1917 and 1938.
23. Himachal Pradesh	Rules for the regulation of Hunting, Shooting, Fishing and Poisoning of Water and the Setting of Trapes or Snares in Forests of Himachal Pradesh, 1949.

*At present, the Bombay Act has been extended to Saurashtra.

APPENDIX IX—concl'd.

(1)	(2)
PART 'C' STATES— <i>contd.</i>	
24. Manipur	1. Prevention of Cruelty to Animals Rules, 1952. 2. Indian Forest Act, 1927 for the Preservation and Protection of Animals. 3. Game Rules in Manipur. 4. Orders of the Maharaja prior to integration regarding complete ban on slaughter of cows are in force.
25. Vindhya Pradesh	Shikar (Shooting) Rules of Vindhya Pradesh, 1950.

PART 'D' STATE

26. Andaman and Nicobar Islands Andaman and Nicobar Local Government Notification No. 1 of 1933-34, made under Sections, 4, 34, and 46 of the Police Act V of 1861.



APPENDIX X

ANNUAL INCOME OF CERTAIN S. P. C. AS. IN INDIA DURING THE LAST FIVE YEARS (Based on the data received from the S.P.C.As.)

Name of S. P. C. A.	Year	Public Dona- tions	Member- ship fee	Fine receipts		Government grant	Miscellane- ous	Total In- come (Cols. 3-7)
				from cases prose- cuted by S. P. C.As.				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1. S.P.C.A., Kanpur	1951	3,789	1,440	21,877	1,200	894	29,209	
	1952	3,113	730	22,080	1,200	824	27,947	
	1953	1,196	695	27,668	1,200	612	31,371	
	1954	3,372	505	29,303	1,300	350	34,830	
	1955	2,060	720	26,194	2,600	749	32,323	
2. S.P.C.A., Dehra Dun	1951	452	80	3,369	900	..	4,801	
	1952	369	70	3,804	900	..	5,143	
	1953	413	160	2,551	900	..	4,024	
	1954	339	70	2,452	900	..	3,761	
	1955	157	95	7,810	900	..	8,962	
3. S.P.C.A., Amritsar	1951-52	2,150 (a)	(b)	3,881	3,000	1,455	10,486	
	1952-53	1,140 (a)	(b)	3,111	3,000	2,099	9,350	
	1953-54	1,497 (a)	(b)	4,267	3,500	3,187	12,451	
	1954-55	1,257 (a)	(b)	4,289	3,967	4,282	17,115	
	1955-56	4,529 (a)	(b)	4,277	3,500	4,012	16,318	

4. S.P.C.A., Simla	..	..	1951	..	48	2,008	..	674	2,730
	..	..	1952	..	70	890	2,100	595	3,655
	..	5	1953	5	100	630	2,100	300	3,135
	..	7	1954	7	55	681	2,100	344	3,190
	..	..	1955	..	190	..	1,200	345	1,735
5. Bihar State S.P.C.A., Patna	..	..	1951-52	2,609 (a)	(b)	(c)	13,502	935	17,046
	..	..	1952-53	7,321 (a)	(b)	(c)	44,039	226	51,586
	..	..	1953-54	13,349 (a)	(b)	(c)	65,708	229	79,286
	..	..	1954-55	12,778 (a)	(b)	(c)	32,567	498	45,843
	..	..	1955-56	16,760 (a)	(b)	(c)	31,487	719	48,966
6. S.P.C.A., Delhi	..	..	1950-51	88	370	23,560	1,000	23,400	48,418
	..	..	1951-52	178	110	24,907	..	14,077	39,272
	..	..	1952-53	49	920	37,982	..	17,945	56,896
	..	..	1953-54	265	490	34,752	..	25,329	70,838
	..	..	1954-55	1,781	438	42,605	..	25,333	70,157
7. Calcutta S.P.C.A., Calcutta	..	..	1951	5,353	252	(c)	86,000	11,213*	102,818
	..	..	1952	4,639	228	(c)	75,000	25,997*	105,864
	..	..	1953	6,199	228	(c)	86,900	11,592*	104,919
	..	..	1954	4,498	144	(c)	88,754	16,213*	109,609
	..	..	1955	4,300	144	(c)	90,667	13,880*	108,991

APPENDIX X—contd.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
8. S.P.C.A., Ahmedabad	1951-52	838	860	8,500	1,300	2,302
		1952-53	1,031	387	5,423	1,300	2,648
		1953-54	963	1,147	8,539	2,800	2,760
		1954-55	1,082	1,011	6,915	2,500†	2,257
		1955-56	901	455	7,231	2,150	2,967
9. S.P.C.A., Madras	1951	1,418	1,521	(c)	11,006	8,766
		1952	1,768	1,578	(c)	10,000	77,786
		1953	1,418	754	(c)	10,000	6,405
		1954	926	772	(c)	11,119	12,679
		1955	917	678	(c)	10,000	9,081
10. Society for the Promotion of Kindness to Animals, Mysore.		1951-52	1,097	888	(c)	2,942	4,667
		1952-53	316	881	(c)	3,125	3,145
		1953-54	1,459	836	(c)	2,425	4,871
		1954-55	451	800	(c)	2,600	3,433
		1955-56	3,923	844	(c)	3,850	5,583

* Includes amounts received from Calcutta Corporation to meet the expenses on Pariah Dog Department.

† Refers to income from sale of milk, manure, other special receipts, etc.

(a) Includes membership fee etc.

(b) Included in public donations in col. 3.

(c) The S. P. C. A. has not reported fine receipts separately, but the corresponding Government grants are in lieu of fine receipts, as indicated in the statements submitted by most of these S. P. C. As.

APPENDIX XI

ANNUAL EXPENDITURE OF CERTAIN S. P. C. AS. IN INDIA DURING THE LAST FIVE YEARS.

(Based on the data received from the S. P. C. As.)

Name of the S.P.C.A. (1)	Year (2)	Salary and wages for staff (3)	Establish- ment (4)	Publicity and propaganda (5)	Mainten- ance of animals (6)	Depre- ciation (7)	Miscella- neous (8)	Total ex- penditure (Col. 3-8) (9)
1. S.P.C.A., Kanpur	1951	16,651	5,150	375	..	331	1,585	24,092
	1952	22,062	4,117	..	..	3,766	1,547	31,492
	1953	17,893	2,819	..	..	3,897	1,394	26,003
	1954	21,863	5,472	44	..	3,960	1,458	32,797
	1955	21,204	5,956	10	..	3,813	1,154	32,137
2. S.P.C.A., Dehra Dun	1951	..	3,424	..	..	..	201	3,625
	1952	..	3,517	..	..	..	203	3,720
	1953	..	3,332	..	..	..	245	3,577
	1954	..	2,623	..	..	..	322	2,945
	1955	..	2,813	..	..	..	413	3,226
3. S.P.C.A., Amritsar	1951-52	3,983	1,448	59	284	..	231	6,005
	1952-53	4,218	2,583	..	314	..	313	7,378
	1953-54	6,060	1,148	29	411	..	268	7,916
	1954-55	6,307	705	163	682	..	282	8,139
	1955-56	6,316	1,109	47	902	..	358	8,732

APPENDIX XI—contd.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
4. S.P.C.A., Simla	..	85	990	..	20	..	80	1,175
	1951	185	1,662	..	..	..	164	2,011
	1952	180	1,980	..	38	..	132	2,330
	1953	178	1,980	..	13	..	134	2,305
	1954	180	1,844	..	124	..	174	2,322
5. Bihar State S.P.C.A., Patna	..	30,414	2,586	812	..	..	1,934	35,746
	1951-52	24,331	4,966	1,533	..	..	1,178	32,008
	1952-53	33,421	6,381	1,371	..	..	1,991	43,164
	1953-54	33,068	8,946	1,989	..	..	1,185	45,188
	1954-55	33,755	16,170	452	..	..	1,139	51,516
6. S.P.C.A., Delhi	..	*	23,976	..	..	..	44,298	68,274
	1950-51	..	27,116	..	..	..	41,588	68,704
	1951-52	..	33,492	..	..	..	57,997	91,489
	1952-53	..	46,474	..	..	..	58,434	104,908
	1953-54	..	47,108	..	..	..	56,122	103,230
7. Calcutta S.P.C.A., Calcutta	..	*	99,569	85	307	988	1,122	102,072
	1951	..	97,353	92	216	6,395	1,808	105,864
	1952	..	102,802	65	177	998	878	104,919
	1953	..	102,126	69	5,015	961	1,438	109,609
	1954	..	102,107	261	5,202	193	1,228	108,991
	1955	..						

8. S.P.C.A., Ahmedabad	..	1951-52	12,536	700	..	679	300	812	15,027
		1952-53	13,464	1,165	36	362	300	710	16,037
		1953-54	13,895	395	..	508	300	909	16,007
		1954-55	14,278	796	30	461	300	1,028	16,893
		1955-56	12,415	412	71	366	300	1,136	14,700
9. S.P.C.A., Madras	..	1951	21,746	2,600	1,554	..	2,956	958	29,814
		1952	15,884	3,952	1,969	..	2,956	915	25,676
		1953	14,672	1,994	1,178	..	2,956	1,016	21,816
		1954	15,764	3,548	575	..	1,041	798	21,726
		1955	14,993	2,458	317	..	1,052	536	19,356
10. Society for the Promotion of Kindness to Animals, Mysore.		1951-52	2,542	1,100	..	153	549	174	4,518
		1952-53	2,935	929	..	407	553	7	4,881
		1953-54	3,097	2,087	..	1,182	227	737	7,330
		1954-55	3,211	1,168	..	120	599	1,616	6,714
		1955-56	3,688	1,518	..	469	877	6,507	13,059

*Included in column (4).

APPENDIX XII

STATEMENT SHOWING (i) NAME OF INSTITUTIONS AND LABORATORIES IN INDIA DOING RESEARCH ON ANIMALS, (ii) NATURE OF RESEARCH BEING CARRIED OUT IN EACH OF THEM AND (iii) NUMBER AND KINDS OF ANIMALS USED FOR SUCH EXPERIMENTATION.

Name of State (1)	Name of Institution/Laboratory (2)	Nature of Research being carried out (3)	Number and Kinds of animals used (4)
Andhra	Animal Husbandry and Fisheries Department, Andhra Pradesh, Egmore, Madras.	No research work on animals has so far been taken up.	Animals are required for teaching and research purposes at the Andhra Veterinary College, Bapatla, Guntur District.
Bombay	Vaccine Institute, Belgaum, Poona.	<p>Anti-small pox vaccine lymph is prepared. Up to October, 1954, the lymph was prepared from the calves but since October, 1954 calves have been completely substituted by sheep. The sheep used are neither maimed nor in any way rendered useless afterwards. The sheep are obtained on hire through contractors and are returned to them after extraction of the pulp material from the vaccinated portion. Till they are incharge of the Institute the sheep are quite healthy and once they are returned to contractors, the Vaccine Institute has nothing to do with regard to further disposal of the sheep. It is possible that they are slaughtered for food purpose. In the Institute sheep are housed in well ventilated stables.</p> <p>Rabbits are injected for testing safety and toxicity of vaccine lymph. Rabbits are housed in iron cages which are kept in well ventilated rooms. Rabbits are bred in the Institute.</p>	<p>Sheep—About 2000 yearly. Rabbits—About 400 yearly.</p>

Do.	Department of Chemical Technology Bombay.	Nutritional Biochemistry.	Rats Mice	400 600
Do.	B. J. Medical College, Poona, Pharmacology Department.	Study of indigenous drugs on experimental diabetes produced by alloxan and pancrealectomy.	Dogs Rabbits	6 8
Do.	Indian Cancer Research Centre, Bombay (Pharmacology Department).	Maintenance of stock cultures; our main interest is to maintain indefinitely in stock tissue cells 1. malignant and 2. normal of human origin.	Mice	50
Do.	Indian Cancer Research Centre Bombay (Experimental Biology Department).	Metabolic studies on human leprosy.	Rats	48
Do.	Topiwala National Medical College, Bombay.	Experimental work on diabetes.	Rats Rabbits	100 40
Do.	I. C. M. R. enquiries at the Medical College, Bombay.	(i) Schistosomiasis enquiry.	Mice	8
			Hamsters	3
			Rabbit	1
			Guinea pigs are also used on few occasions.	
		(ii) Poliomyelitis.	Rabbits	12
			Monkeys are also used for preparing tissue cultures.	
		(iii) Toxoplasma.	Mice	..
			Guinea pigs and Rabbits are also used or preparation of anti-sera.	

Bihar

Patna Medical College, Public Health Institute, Patna, Department of Orthopaedic Surgery.

(a) Effects of metaphyseal stimulation on longitudinal bone growth; (b) the influence of epiphyseal growth arrest on the muscles of a limb under a grant from the Bihar Board of Medical Research; (c) Experimental Diaphysectomy under Fellowship grant from the Lady Tata Memorial Fund; (d) Relative value of rest and movement in intra-articular fractures; (e) The relative incidence of human and bovine tubercle bacilli infection in bone and joint tuberculosis; (f) Treatment of experimental peritonitis in rabbits.

Goats 100
Guinea pigs 60
Rabbits 30

Madhya Pradesh

Madhya Pradesh Vaccine Institute, Nagpur (a) Smallpox Section.

Manufacture of smallpox lymph.

Bovine calves between 1 1/2 to 2 1/2 years. } About 400
Buffalo calves between 1 1/2 to 2 1/2 years. } year

Sheep and Goats About 400 a year.

Rabbits on an average About 12 a year.

But this depends upon requirement of lymph and average figures of last 3 years are as under:—

Bovine calves 466
Buffalo calves 60
Sheep 125
Goats 4
Rabbits 11

APPENDIX XII--contd.

(1)	(2)	(3)	(4)
Madhya Pradesh —contd.	Madhya Pradesh Vaccine Institute, Nagpur (b) Cholera Section.	Animals are used in connection with laboratory tests in the manufacture of prophylactic cholera vaccine and preparation of high titre sera.	*Number depends on the number of brews of vaccine prepared and the quantity of high titre sera prepared. As the work of the Cholera Section started only last year, they are not in a position to state the average number of animals used annually. (*Rabbits Guinea pigs)
Do.	Medical College, Nagpur, Department of Pharmacology.	Study of the modification by quinine of the haemolytic response of erythrocytes to various haemolytic agents.	Rabbits 18 Guinea pigs 18
Do.	Medical College, Nagpur, Department of Pathology and Bacteriology.	Study of the Lymphogranuloma Psittacosis group of viruses with special reference to Ornithosis.	Parrots 60 Fowls 12 Guinea pigs 120 Mice 240 Rabbits 60 Sheep 1 Others 60
Madras	Central Malaria Laboratory attached to the Office of the Director of Public Health, Madras.	Rabbits are utilised for feeding mosquitoes which are raised in colonies for research work. Sparrows are used for demonstrating the development of mosquito stages of P. Præcox.	During the year 1955-56 the number of rabbits varied from 8 to 4. About 90 Sparrows with natural infection were used and they seldom live for more than a week.
Do.	Madras Medical College, Madras, Pharmacology Department.	Pharmacological assay of Eclipta Alba under the research scheme.	Dogs 6
Do.	Madras Medical College, Madras, I. C. M. R. programme.	TPA programme and establishment of virus LGV.	Rabbit 1 White mouse 2 Guinea pigs 3 Birds 4

Do.	Pasteur Institute of Southern Coonoor.	India,	Research work is being carried out on rabies, influenza, cholera, Syphilis and tropical eosinophilia.	Sheep Rabbits Guinea pigs Mice Dogs Horses	.. .. .. .. .. ..	2051 112 2,934 2,719 8 2
Do.	Nutrition Research Coonoor.	Laboratories,	Nutritional research both clinical and experimental.	Rats Dogs Monkeys Guinea pigs	.. .. .. ..	3,000 in two years.
Orissa	S. C. B. Medical College, Cuttack— (i) Department of Pharmacology.		1. Physiology of Gastric secretion and effect of Endocrines. 2. Experimental allergy 3. Gonadotropic activity in Urine and faeces. 4. Histaminase activity in Health and disease. 5. Effect of histamine and relative potency of anti-histamines.	Cats Rats Dogs Pigeons Guinea pigs Rabbits Mice Toads	.. .. .. .. .. .. .. .. .. .. ..	24 48 48 72 24 12 48 96 to 120
	(ii) Department of Pathology.		1. Experimental cirrhosis on rats.	Rats	..	25

APPENDIX XII—contd.

(1)	(2)	(3)	(4)
Orissa—contd.	S.C.B. Medical College, Cuttack—contd.		
	(iii) Department of Physiology.	1. At present no research is carried on animals.	
Do.	Veterinary Department—		
	(i) Provincial Veterinary Laboratory	Investigation of diseases which confirms the Department from time to time.	All types of experimental animals such as rats, guinea pigs, rabbits and large animals like goats and cattle as required from time to time.
	(ii) Stephanoafilariasis.	Transmission of disease and its control.	10 cattle.
	(iii) Lumber Paralysis.	Do.	Beetal goats and their cross breedings.
	(iv) Waste Products.	To utilise materials running waste as feed for cattle.	135 milch cows. 139 growing calves.
	(v) Retention of Placenta.	Causes of retention of placenta	13 cows.
Punjab	Medical College, Amritsar—	Experimental medicine.	Monkey 1 Rabbits 102 Rat 1
	1. Anatomy Department		
	2. Physiology Department	Fundamental— (a) Amphibian. (b) Mammals.	Frogs 600 Rabbits 50 Rats 50 Dogs 20
	3. Pharmacology Department.	Experimental pharmacology research.	Mice 100 Guinea pigs 6 Dogs 80 Frogs 500

4. Pathology Department.

1. Anti sera preparation.
2. Tuberculosis experiments.
3. Friedmann test.

} Rabbits

.. ..

100

1. Pneumococcal experiments.
2. Rickettsie work.

} Mice

.. ..

20

1. Experiments of tuberculosis.
2. Taking blood for complement.
3. For diptheria pathogenicity tests.
4. Allergic reactions—anaphylactic shocks.

} Guinea pigs

.. ..

125

5. Clinical Surgery Department.

1. Taking blood for preparation of culture media.

} Sheep

.. ..

1

2. Experimental surgery

} Dogs

.. ..

40

6. Bacteriological Laboratory.

Friedmann test.

} Rabbits

.. ..

50

Taking blood for complement for serological test and for certain pathogenicity tests.

} Guinea pigs

.. ..

50

Taking blood for the preparation of culture media.

} Sheep

.. ..

1

Do.

Hygiene & Vaccine Institute,
Amritsar.

No research work is conducted on animals in this Institute, but vaccine lymph is manufactured from buffalo calves. About 250 calves are procured on hire each year, which are returned back to the contractor. 30 white mice, 24 rabbits and 30 guinea pigs are used by the Institute yearly for conducting potency and pathology tests. These animals generally do not die after the collection of vaccine pulp and conducting various tests, etc.

APPENDIX XII—contd.

(1)	(2)	(3)	(4)	(5)
Punjab—contd.	Central Research Institute, Kasauli.	T. A. B., cholera and rabies vaccine, snake antivenome, diphtheria anti-toxic serum and tetanus toxoid are manufactured in the Institute. Bacteriological and serological research related to these products are carried out. Research on the laboratory aspects of tuberculosis and virus disease like encephalitis, poliomyelitis and yellow fever is also carried out.	<div> <div>1954</div> <div> <div>32</div> <div>3,964</div> <div>564</div> <div>4,788</div> <div>5,973</div> <div>1,143</div> <div>14</div> </div> </div> <div> <div>1955</div> <div> <div>47</div> <div>3,427</div> <div>362</div> <div>4,106</div> <div>10,260</div> <div>1,454</div> <div>20</div> </div> </div>	<div> <div>Horses</div> <div>Sheep</div> <div>Rabbits</div> <div>Guinea pigs</div> <div>White Mice</div> <div>Pigeons</div> <div>Monkeys</div> </div> <div> <div>Horses, Sheep, Rabbits and Pigeons are almost entirely used in manufacturing only. Guinea-pigs, White Mice are used for both research and manufacture. Monkeys are used exclusively for research.</div> </div>
Do.	Christian Medical College, Ludhiana, Department of Pathology and Bacteriology.	Research on the incidence of the RH factor in pregnant women in Indian States, and its relation, if any to toxæmia, hæmorrhagic states and still births.	<div> <div>..</div> <div>..</div> <div>..</div> <div>..</div> <div>..</div> <div>..</div> <div>..</div> </div> <div> <div>Rabbits</div> </div>	<div> <div>3</div> </div>
Uttar Pradesh	Central Drug Research Institute, Lucknow.	Investigation into the study of Adrenocortical hormones; (ii) training in general pharmacology; (iii) plague enquiry; (iv) Cholera enquiry.	<div> <div>..</div> <div>..</div> <div>..</div> <div>..</div> <div>..</div> <div>..</div> <div>..</div> </div> <div> <div>Rats</div> <div>Mice</div> <div>Dogs</div> <div>Rabbits</div> <div>Guinea pigs</div> </div>	<div> <div>328</div> <div>75</div> <div>20</div> <div>40</div> <div>120</div> </div>
Do.	I.C.M.R. enquiry at the S. N. Medical College, Agra.	Production of atheroma in rabbits.	<div> <div>..</div> <div>..</div> </div> <div> <div>Rabbits</div> </div>	<div> <div>36</div> </div>
Do.	I.C.M.R. enquiry at the S. N. Medical College, Agra.	<div>(i) Production of dietary cirrhosis in rats.</div> <div>(ii) The study of the role of adrenal-cortex in the reversibility of fibrous tissue.</div>	<div> <div>..</div> <div>..</div> </div> <div> <div>Rats</div> </div>	<div> <div>12 dozens</div> </div>

West Bengal	Vaccine Laboratory, Government of West Bengal.	Preparation of anti-sera.	Rabbits	15
Do.	Vaccine Institute, Government of West Bengal.	Standardisation of Vaccine lymph.	Rabbits } Guinea pigs }	50
Do.	West Bengal Drug Control Laboratory, Government of West Bengal.	Number of papers published during the last two years which required animal experiments, 1954-9:1955-10. Besides these plenty of animals are used for routine analysis.	(Approximately) Monkeys Cats Rabbits Guinea pigs Rats Mice	6 40 30 50 100 200
Do.	Central Drugs Laboratory, Government of India.	This being a statutory laboratory under the Drugs Act, mainly routine examinations of Drugs and Chemicals are carried out here. However, some research problems are also undertaken here.	(Approximate No.) Mice Rats Guinea pigs Rabbits Cats	1,500 500 200 150 120
Do	Calcutta Corporation Vaccine Institute. Calcutta Corporation Vaccine Laboratory.	2 in (1) and 1 in (2) viz. Manufacture of vaccine lymph and Cholera Vaccine in (1) and Research work in connection with Cholera Epidemic in (2).	Calves Buffalo calves Rabbits Guinea pigs	500 20 78 240
Do.	Pharmacological Laboratory, R. G. Kar Medical College, Calcutta.	Pharmacological investigation of various drugs, specially of indigenous origin including Biological Standardisation and toxicity test.	(Approximately) Dogs Cats Rabbits	50 100 to 125 25 to 30

150 to 200 Small animals including Pigeons, Guinea pigs, Rats, Mouse, Frogs, etc., of each kind.

APPENDIX XII—contd.

(1)	(2)	(3)	(4)
West Bengal —contd.	Biology and Bio-Assay Laboratories Bengal Chemical and Pharmaceuti- cal Works Ltd., Calcutta.	No animal is used mainly for research purpose but animals are used for carrying out official tests of various Products of the Laboratory.	Guinea pigs .. 1,428 White mice .. 1,674 White Rats .. 150 Cats .. 350 Rabbits .. 38
Do.	Bengal Immunity Research Institute.	Biochemical and Physiological Investi- gations in the Laboratory.	(Approximately) White Mice .. 3,000 White Albino Rats .. 600 Guinea pigs .. 900 Rabbits .. 200 Cats .. 50 Frogs .. 100 Sparrow .. 200 Fowl .. 100 Chick .. 100 Pigeons .. 100 150 Rabbits 400 mds. Mammalian Livers. 100 Male 5 mds. Pancreas
Do.	Indian Health Institute and Laboratory Ltd.	(a) Pyrogen Test. (b) Biological Assay of Tincture Digi- talis. (c) Biological Assay of Pituitary Ex- tract. (d) Biological Assay of Adrenalin. (e) Abnormal Toxicity of Drugs.	Guinea pigs 6,000 pcs. Ovary 60 Virgin 2,000 " Testes Guinea pigs 1,000 " Thyroid 4 Cats 2,000 " Suprarenal. 150 Guinea pigs 12,000 " Gall Bladder. 50 White Mice 6,000 " Pituitary The above things are collected from local slaughter houses for glandular and other preparation of the Laboratory.

Do.	Medical College, Calcutta— (Department of Pathology)	(a) I.C.M.R. Research Scheme. (b) Departmental Research & Work. (c) Pathogenicity tests for hospital Bacteriology.	Rabbits .. Guinea pigs .. Mice ..	200 150 24
	(Department of Physiology)	(a) Mainly researches are being carried on cats, rabbits and guinea pigs and albino rats.	Number varies between 2 dozen of each species of rabbits, guinea pigs and albino rats and about 1/2 dozen cats.	
	(Department of Pharmacology)	1 to 4	About 25 annually and mostly cats.	
	Department of Experimental Medical Science (Physiology Department)	(a) Audiographic studies in rabbits and Guinea pigs. (b) Flurescent studies in rabbits and guinea pigs.	(a) Rabbits .. Guinea pigs .. (b) Rabbits .. Guinea pigs ..	36 12 10 1
Do.	Seriological Laboratory of V. D. Clinics attached to Blood Bank, Calcutta.	Studies of false reactions in seriological tests of Syphilis with flocculation tests.	Sheep Guinea pigs	1 36
Do.	Tropical Medicine Department, School of Tropical Medicine, Calcutta.	One Research on each animal.	Monkeys Rabbits Dogs Rabbits	12 8 6 60
Do.	Protozoology Department, School of Tropical Medicine, Calcutta.	One item of research carried on each animal.	Guinea pigs White rats White mice Rabbits	30 80 20 3
Do.	Research Department of Dermatology, School of Tropical Medicine, Calcutta.	Once on each animal.	Guinea pigs Rabbits	2 3

● APPENDIX XII—contd.

(1)	(2)	(3)	(4)
West Bengal —contd.	Leprosy Research Department, School of Tropical Medicine, Calcutta.	One on each animal.	White rats 8 dozen Guinea pigs 6 " Syrian Hamsters 6 " Black mice (a special breed) 2 "
Do.	Standard Pharmaceutical Works Ltd., Calcutta.	(a) Digitalis Assay (b) Strophanthus Assay (c) Pituitary Ext. Assay (d) Toxicity tests (e) Pyrogen tests (f) Tetanus Toxin (g) Anti-Titanus Sera	216 72 48 120 144 144 288
Do.	Standard Chemical and Pharmaceutical Works, Calcutta.	Pyrogen Tests	A few rabbits.
Do.	Plague Control Laboratory.	Nil	Nil
Do.	Pasteur Institute, Calcutta.	Nil	Nil
Do.	Presidency College, Calcutta Depart- ment of Physiology.	...	Monkeys 7 Guinea pigs 165 Rabbits 21 Rats 13 Mice 4
Do.	University College of Science and Technology, Calcutta, Department of Applied Chemistry.	Biochemical and Nutritional Research.	Approximately 300 Rats Guinea pigs Rabbits Fowls.

Do.	Seth Sukhlal Karnani Memorial Hospital, Calcutta, Department of Pathology and Bacteriology.	Fundamental and applied	Monkeys, albino rats, mice, rabbits and guinea pigs.
Do.	I. C. M. R. enquiries at the Nilratan Sircar Medical College, Calcutta.	....	Rats, pigeons, rabbits
Do.	—Do— Department of Pharmacology.	(i) Effects of drugs on isolated intestine and uterus. (ii) Effect of drugs on isolated heart, intestine. (iii) Effect of drugs on blood pressure etc. (iv) Effects of drugs on intestine and uterus and effect of convulsants.	Guinea pigs 4 Rabbits 3 Cats 22 Rats 41
Do.	Nilratan Sircar Medical College, Calcutta, Department of Physiology.	1. Researches on Endocrines if and when done.	Albino Rats 5
Do.	All-India Institute of Hygiene and Public Health, Calcutta, Industrial Health Research Unit.	Studies of toxicity and metabolism of substances which are considered health hazards in industrial operations.	Rats, Guinea pigs, Rabbits and Monkey } 100
Hyderabad	Public Health Central Laboratories, Hyderabad (Dn.)	The animal are used not for any specific research, but just for the preparation of small-pox lymph and also for the various Laboratory's tests.	*(i) Cows and Buffaloes 200 **(ii) Guinea pigs 200 *** (iii) Rabbits 25

*For preparation of vaccines. These animals are simply vaccinated.

**For testing the sterility of vaccine prepared and also for Laboratory test. These animals are simply inoculated with the vaccine.

***For testing the sterility of vaccine prepared and also for Laboratory test. These animals are simply inoculated with the vaccine.

APPENDIX XII—contd.

(1)	(2)	(3)	(4)
Jammu & Kashmir.	Drug Research Laboratory, Jammu (Kashmir)	Pharmacological investigation of drugs, Biological standardisation.	<p>Rabbits .. 30</p> <p>Guinea pigs .. 255</p> <p>Rats .. 40</p> <p>Mice .. 65</p> <p>Cat .. 1</p> <p>Dogs .. 72</p>
Madhya Bharat	Mahatma Gandhi Memorial Medical College, Indore, Physiology Department.	Studies on antifatty liver fractions of the pancreas and their role in the prevention and treatment of fatty livers.	<p>Rats .. 100</p>
Mysore	Government Vaccine Institute, Lal Bagh Road, Bangalore-2.	<p>(a) Production of vaccine lymph and research connected with it.</p> <p>(b) Other research problems with particular reference to Viruses.</p>	<p>(1) Guinea pigs used for Anaerobic toxicity tests on an average 75 annually.</p> <p>(2) Rabbits used for—</p> <p>(a) testing potency of vaccine lymph;</p> <p>(b) preparation of seed vaccine;</p> <p>(c) preparation of hyperimmune serum for research work.</p> <p>(d) preparation of pure vaccine virus for research purposes on an average 100 annually.</p> <p>(3) White mice.</p>

A colony of 250 white mice only has been built up. No research work is being undertaken on them as yet, but it is to be used for virus isolation work, which is under programme.

Do. Public Health Institute, Bangalore. 1. The Sheep is maintained to obtain Sheep

the Sheep's R. B. C. which is used to prepare the haemolytic system for use in the complement fixation tests.

734

White mice

2. White mice are used mainly for the determination of the Potency of the Plague Vaccine prepared at this Institute. White mice are also used for isolating Bacillus Pestis from materials sent to this Institute for examination and are occasionally used in the medico-legal section for determining the toxicity of the alkaloids and glucosides extracted from the viscera sent for analysis.

18

White rats

3. White rats are used for nutritional experiments to determine the nutritive value of food grains.

25

Frogs

4. Frogs are used for determining the toxicity of alkaloids, glucosides and such other poisons extracted from the materials sent for toxicological analysis in the Medico-legal Section.

5. Rabbits and Guinea pigs are not maintained at this Institute but are obtained from the Vaccine Institute for experiments as and

APPENDIX XII—contd.

(1)	(2)	(3)	(4)
Mysore—contd. Public Health Institute, Bangalore— contd.	when required. The following are the experiments for which they are used:		
1.	Preparation of Amoeyptor for complement fixation tests.		
2.	Preparation of Blood Agar.		
3.	Preparation of complement for use in complement fixation tests.		
4.	To determine the toxicity of the vaccines prepared and in some cases to determine the potency of the vaccine (T.A.B.).		
Do.	Indian Institute of Science, Bangalore-3.	<p>The Department of Biochemistry at this Institute is using rats, mice, guinea pigs, chicken, rabbits, dogs and pigeon for biochemical and nutritional experiments such as, nutritional studies on intestinal synthesis of vitamins, effect of heat on the nutritive value of vegetable oils, influence of vitamins and salts on protein metabolism etc. and in testing of the effect of antibiotics, such as, toxicity and <i>in vivo</i> tests, distribution of antibiotics in the system pharmacodynamic studies etc. Small quantities of animal bloods are needed for Medix purposes and for testing the anticoagulant factors, etc.</p> <p>It is difficult to give the number of animals required per year as that depends on the type, nature etc. of the work. The Institute uses approximately 250 rats, 300 mice, 12 guinea pigs, 150 chickens, 8 rabbits, 12 dogs and 6 pigeons.</p>	

Care is taken in all our experiments to see that the animals are not subjected to unnecessary cruelty and wherever possible they are anaesthetised.

Do. University of Mysore, Mysore.

1. Protozoa: Some ciliates like Vorticella, Spirostomum, Blepharisma, Cytochemical.
2. Coelentra: Hydra—Developmental.
3. Worms: Earthworms, Morphology, Nematode Worms Cytology.
4. Insects: Cytology, Crickets, Grasshoppers (Orthopter) Bugs: Hemiptera.
5. Centipede: Cytology (Myriopoda).
6. Scorpion: Cytology.
7. Thelyphonous: Cytology, Development—Embryology.
8. Snail: Cytochemistry of the sex glands.
9. Fish: Artificial spawning, Embryology and Morphology.
10. Amphibia: Frogs: Cytology, Caecilians: Cytology, Caecilians Embryology.

APPENDIX XII—contd.

(1)	(2)	(3)	(4)
Mysore— <i>contd.</i>	Univeristy of Mysore, Mysore— <i>contd.</i>	11. Reptilia: Calotes: Embryology and Morphology Snakes: Embryology Crocs & Tortoises: Embryology.	
		12. Bird: Cytochemistry of Eggs.	
		13. Mammal: Cytochemistry of gonads: placentation.	
		A large number of these specimens are used, particularly during the breeding season.	
P.E.P.S.U.	Government Medical College, Patiala:		
	(i) Anatomy Department.	1. Experimental work on animals. 2. Dissection of animals for comparative anatomy. 3. For the section of taxidermology.	Monkeys .. 8 Dogs .. 10 Rabbits .. 8 Guinea pigs .. 8 Rats-Albino .. 14 Goats .. 3 Flying fox .. 4 Cats .. 4 Sheep .. 2 Frogs .. 12
	(ii) Physiology Department.	Physiological research on nutrition, cardi-vascular pulmonary, nervous system and endocrinology etc.	Rats Frogs Dogs Monkeys Cats Birds Rabbits as required.

P.E.P.S.U.—*contd.* Govt. Medical College, Patiala—*contd.*

(iii) Pathology Department.

Animal inoculation for diagnostic purposes, testing for pyrogens, production and study of disease.	Albino rabbits	200
	Guinea pigs	100
	Rabbits	50
	Sheep	1
	Mice	100

(iv) Pharmacology Department.

Experiments on cardio-vascular system, respiration, nervous system, gastro, intestinal system.	Dogs	50
	Rabbits	25
	Guinea pigs	125
	Albino rats	25
	Mice	50
	Frogs	250

(v) Department of Pathology.

Production of liver injury by chemical, dietetic and operative measures with a view to study the chromatographic and electro-phoristic patterns.	Rats	100
--	------	-----

Rajasthan

S. M. S. Medical College and Attached Hospitals, Jaipur.

1. Teaching of under-graduate and post-graduate students—Physiology of bodily action of drugs on bodily function.	Frogs	3,000 annually
	Pigeons	20 "
	Rabbits	150 "

2. Diagnostic experiments for diagnosis of diseases:—

	Rats	500 "
	Mice	500 "
	Guinea pigs	200 "

(i) by animal inoculation;

	Cats	200 "
--	------	-------

(ii) for obtaining materials for use in diagnostic methods.

	Dogs	400 "
	Monkeys	50 "

APPENDIX XII—contd.

(1)	(2)	(3)	(4)
Rajasthan—contd.	S.M.S. Medical College and Attached Hospital, Jaipur—contd.	<p>3. Research in Physiology including Biochemistry (Mechanism and control of bodily functions), Pharmacology (Action of drugs, mode of their action, use of drugs in the treatment of abnormal conditions).</p> <p>Pathology and Bacteriology (causation of disease as a result of trauma—physical, chemical and biological).</p> <p>4. Experimental Medicine—</p> <p>(i) Effect of remedial agents in animals in health or in disease experimentally induced.</p> <p>(ii) Causative factors of diseases experimentally induced in animals.</p> <p>5. Experimental Surgery—</p> <p>(i) Neuro-Surgical treating.</p> <p>(ii) Causative factors of diseases in animals.</p>	<p>As the work is gradually increasing the number is likely to be increased in due course.</p>
Saurashtra	....	Information not furnished.	
Travancore-Cochin	Public Health Laboratory, Trivandrum-I.	No animal is used in this Laboratory for research experimentation.	
Bhopal	Gandhi Medical College, Bhopal, Physiology Department.	<p>(a) Experiments on the functions of different systems and organs under anaesthesia on dogs, cats, rabbits, guinea pigs, bats and other mammals, which can be handled easily. After the day's observations are made these animals will be killed.</p>	<p>Dogs, cats, rabbits, guinea pigs, bats, rats, mice and birds. Frogs and toads are used by the students and these may also be used by the research workers. These animals are killed before experiments.</p>

(b) Experiments on the above animals under surgical anaesthesia with a view to observing changes and other reactions not only during anaesthesia but even after recovery. Such animals will be allowed to come out of anaesthesia and taken care of during the whole of the observation period.

The total number of animals used will depend on the kind of experiments. Animals like cats and dogs, when kept under observations in the laboratories, may be about a dozen. The animals like guinea-pigs and rabbits will be in dozens. Sometimes these will be in several dozens. The number of rats and mice may reach over a hundred. Frogs may reach over a thousand.

(c) Nutritional experiments where no anaesthesia will be needed. They will be fed on special diets and the effects observed. Such animals will be taken proper care of during the observations and at the end they will either be killed for post-mortem observations or will be allowed to recover from the effects of the special diets and kept in the stock of the laboratory animals.

Do.	Government Hamidia Hospital, Bhopal.	Dogs, 2 dogs on the average, undergo operation in a month.
Delhi	Malaria Institute of India, Delhi.	
	A. (1) Maintenance of strain of Avian and Simian plasmodia.	Monkeys 100 Fowls 55
	(2) Survey of birds for natural plasmodial infection.	Rabbits 14 Pigeons 7 Mice 481
	(3) Transmission experiments with blood and sporozoites induced infection.	Rats 657 Dogs 6 Cats 2

APPENDIX XII—contd.

(1)	(2)	(3)	(4)
Delhi—contd.	Malaria Institute of India, Delhi —contd.		
	(4) Behaviouristic pattern in plasmodia under various nutritional states.	Cotton Rats Lizards .. Partridges .. Quails .. Dusks .. Guinea fowls .. Sparrows ..	Daily average 12 4 5 4 5 9 5
	B. Blood biochemistry in plasmodial infection.		
	C. Haematological studies in Malaria infections, acute and chronic and under various dietary conditions.		
	D. <i>Chemotherapeutic studies</i> —		
	(1) Routine screening of antimalarials in chicks.		
	(2) Tolerance tests.		
	(3) Detailed investigations in simian malaria with the drugs found effective during screening.		
	(4) Acute and chronic toxicity tests of antimalarials in simian hosts.		
	(5) Special investigations:		
	(a) Potentiation tests.		
	(b) Studies on the development of acquired resistance to anti-malarials in plasmodia.		
		In the <i>Filaria Laboratory</i> .	
		Lizards Partridges Cotton rats Dogs and Fowls	These are used for studies in experimental and animal filariasis.
			Rabbits are used for maintenance of insect colonies.

(c) Effect of anti-malarials in the sporogony cycle in mosquitoes.

(d) Effects of 8-aminoquinolines against exo-erythrocytic cycle.

E. *Pathology*—Changes in the internal organs. Studies in acute and chronic malaria under various dietary conditions.

Investigations of the etiology of changes found in organs due to malaria infections.

F. *Immunology*—Precipitin tests.

Lady Hardinge Medical College, New Delhi—

Department of Pharmacology.

For class experimentation and for testing the action of various drugs on the animal system.

Rats
Mice
Dogs
Cats
Monkeys
Rabbits
Frogs

200
200
80
40
10
100
800

Study of higher nervous control over visceral activity.

Rats
Dogs
Cats
Monkeys

100
100
30
30

Do. Department of Pathology.

Inter-relationship between malaria and Tuberculosis.

Monkeys
Rabbits
Guinea pigs

100
60
60

Do. Department of Bacteriology.

Animals inoculation. Bleeding of animals. Collection of blood and serum.

Guinea pigs
Rabbits
Mouse Litters
Mice
Sheep

6
16
17
21
7

APPENDIX XII—concl'd.

(1)	(2)	(3)	(4)
Delhi—concl'd.	The New Delhi Tuberculosis Centre, New Delhi.	To prove the pathogenicity or otherwise of acid fast saprophytes encountered in routine culture for Mycopacte- rium Tuberculosis in the Centre.	Guinea pigs } Rabbits } Mice } 100
Himachal Pradesh	Himachal Pradesh Hospital, Snow- down, Simla.	Experimental surgical research work on various cardio-vascular problems.	Dogs, about 50 in a year.
Kutch	....	No research work on animals is being done.	....
Manipur	....	Do.	....
Tripura	....	Do.	....
Vindhya Pradesh	....	Information not furnis....	No animal used for scientific investigation.
Andaman and Nicobar Islands	....	No research work on animals is being done.	....

N.B.—This table is not complete and contains information received only up to the 24th January, 1957 (the date on which the Report was signed).

APPENDIX XIII

MODEL RULES FOR MEAT INSPECTION AND FOR THE INSPECTION OF SLAUGHTER-HOUSES AND THEIR REGULATION.

PART I.—DEFINITIONS

1. In these Rules unless the context otherwise requires,—

- (i) "Animal" includes any horse, mare, gelding, pony, foal, colt, filly, stallion, ass, donkey, mule, bull, cow, bullock, heifer, calf, steer, ox, sheep, lamb, ewe, whether ram, pig, boar, hog, sow, goat, or kid;
- (ii) "Butcher" means the person producing or dealing with meat intended for human consumption;
- (iii) "Carcasses" means the carcasses of animals mentioned in clause (i);
- (iv) "Cattle" includes a bull, cow, ox, heifer, calf, steer, bullock, or buffalo;
- (v) "Condemned" means that carcasses, parts or organs so marked unfit for food of man and shall be destroyed for food purposes;
- (vi) "Halal" means the meat prepared according to the religious rites of Mohammedans;
- (vii) "Jhatka" means the meat prepared according to the religious rites of Sikhs;
- (viii) "Local Authority" means the Council, Committee, Corporation, or Panchayat of a municipality, Notified Area, Small Town, or any other local area;
- (ix) "Meat" means flesh or other edible parts of an animal which is sold or intended for sale for human consumption;
- (x) "Meat Inspector" means the Medical Officer of Health, or Veterinary Surgeon or any other officer appointed by a local authority and vested with the power to inspect and examine meat intended for human consumption;
- (xi) "Medical Officer of Health" means any duly qualified Medical practitioner appointed or employed by a local authority or a local Government to act in that capacity;
- (xii) "Nuisance" includes any act, omission, place or thing which causes or is likely to cause injury, danger, annoyance or offence to the sense of sight, smell or hearing, or which is or may be dangerous to life or injurious to health or property;
- (xiii) "Public Street" means any street—
 - (a) over which the public have a right of way; or
 - (b) heretofore levelled, paved, metalled, channelled, sewered, or repaired out of municipal or other public funds.
- (xiv) "Slaughter-hall" means the actual place where the animals are slain;
- (xv) "Slaughter-house" means any building, premises, or place used in connection with the business of killing and slaughtering animals intended for human consumption. For the purpose of these rules a slaughter-house may be either a public slaughter-house maintained by the local authority or a private slaughter-house duly licensed for the purpose of slaughtering animals;
- (xvi) "Slaughter-man" means the person who slaughters the animals and dresses the carcasses;
- (xvii) "Veterinary Surgeon" includes any duly qualified Veterinarian appointed or employed by a local authority or a local Government to act in that capacity.

PART II.—PRIVATE AND PUBLIC SLAUGHTER-HOUSES

2. In localities where one or more public slaughter-houses are present, or such that are to be established by local laws, there shall be prohibited—

- (a) the establishment of new private slaughtering places;
- (b) a further use of existing private slaughtering places, unless such places are constructed in accordance with the sanitary requirements laid down in Part III of these rules.

3. A local authority may provide, establish, improve or extend and maintain within or without their area, and two or more local authorities may combine to provide, establish, improve or extend and maintain, one or more public slaughter-houses constructed in accordance with the sanitary requirements laid down in Part III of these rules.

4. In localities where one or more public slaughter-houses that do not conform to the sanitary requirements laid down in Part III of these rules, are present, the local authorities concerned shall make necessary provisions for any changes, extensions or improvements that are in accordance with the aforesaid sanitary requirements. For this purpose a certain percentage of the income from slaughter-houses may be set apart as a reserve and used for extension and improvements or as an alternative local authorities may advance loans as and when required up to a certain percentage of the income realised from the slaughter-houses.

5. In a local area the slaughter-houses for the slaughter of—

- (a) cattle;
- (b) sheep and goats (Halal); and
- (c) sheep, goats and swine (Jhatka);

and the preparation of meat thereat shall not be within 100 yards of each other.

PART III.—SITE, STRUCTURE AND SANITARY REQUIREMENTS OF SLAUGHTER-HOUSES

6. The premises to be erected or to be used and occupied as a slaughter-house shall not be within 300 feet of any dwelling house or building frequented by the public, and the site shall be such as to admit of free ventilation by direct communication with the external air on at least two sides of the slaughter-house.

7. The slaughter-house shall not in any part be below the surface of the adjoining ground.

8. The approach to the slaughter-house shall not be on an incline of more than one in four, and shall not be through any dwelling house or shop. Any door of the slaughter-hall or cooling room shall not open directly into any street or lane or other public place, and shall not be so situated that the slaughtering of animals can be seen from any public place, public street or from any adjacent dwelling house, or occupied place outside the slaughter-house. A sign board, marked "Registered slaughter-house" or "Licensed slaughter-house" shall be placed in front of the building or place used for slaughtering.

9. Every slaughter-hall or cooling-room shall be covered with a proper roof, and no habitable room or loft shall be constructed over the slaughter-house and lairs, pens or stables in connection with the same.

10. Lairs, pens or stables which should be provided for food animals awaiting slaughter in connection with the slaughter-house shall not be within 100 feet of a dwelling place or building frequented by the public; and they shall be properly paved, drained, ventilated and lighted, and water-supply in them should be convenient and adequate for animals awaiting slaughter,

11. No lair or stable in connection with the slaughter-house shall be so situated or constructed that animals within it may see into any slaughter hall or cooling room.

12. The water-supply shall be ample, clean and potable, with adequate facilities for its distribution in the slaughter-house. In addition, the slaughter-house shall be provided with an adequate tank or other proper receptacle for water having a water-tap to which a hose can be readily attached, so placed that the bottom shall not be less than 6 feet above the level of the floor of the slaughter-house.

13. The slaughter-house shall be provided with means of thorough ventilation and abundant light, both natural and artificial. All doors and windows shall be provided with fly proof shutters.

14. The slaughter-house shall be well paved with rough cement concrete or other non-slippery impervious material, and laid with proper slope and channels running towards one or more gullies (which shall be properly trapped and covered with a grating, the bards of which shall not be more than three-eighth of an inch apart) placed immediately outside the slaughter-hall or cooling room to allow of the floor being flushed and drained. The corners of the walls and floor shall be rounded off to prevent the collection of dirt and dust.

For non-sewered towns a cesspool or pit, constructed of non-absorbent material, shall be provided outside the building for the collection of slaughter-house refuse only.

15. The surface of the walls in the interior of the slaughter-house shall be covered with hard, smooth and impervious material to a height of at least 6 feet. White-washing of the walls shall be done at least once in six months.

16. No water-closet, privy or cesspool shall be constructed within the slaughter-house. There shall be no direct communication between the slaughter-house and any stable, water-closet, privy or cesspool except that which is provided for the collection of the slaughter-house refuse.

17. Every practicable precaution shall be taken to keep the slaughter-house free from flies, carrion, rats, mice and other vermin. The use of poisons and rat-viruses for any purpose in rooms or compartments within the slaughter-house premises where meat or meat products are stored or handled shall be forbidden.

18. Every slaughter-house shall be provided with properly located facilities for disinfecting and cleaning utensils, hands and instruments, etc., of all persons handling any meat or meat products.

PART IV.—REGULATION OF A SLAUGHTER-HOUSE

19. A person, firm, corporation or any officer or agent of any such person, firm or corporation, carrying on the business of a slaughter of animals shall not use any premises as a slaughter-house without a licence from the local authority.

20. No person shall slaughter or cause or permit to be slaughtered at any place other than a public slaughter-house or premises licensed for the purpose of slaughtering, any four-footed animal the flesh of which may be used as human food:

Provided that this shall not apply for sacrificial slaughter, on the occasion of any festival or ceremony, of animals the flesh of which is not intended for sale; and provided further that the slaughter of such animals shall not be carried out within the sight of public.

21. Every person who may apply to the local authority for a licence for the erection, use and occupation of any premises, as a slaughter-house shall furnish in Form A appended to these rules, a true statement of the particulars therein requires to be specified.

22. Every person to whom the local authority may have resolved that a licence be granted to erect premises for use and occupation as a slaughter-house shall be entitled to receive from the said local authority a licence in Form B appended to these rules, or to the like effect.

23. A fee shall be charged by the local authority for granting every licence or renewal of licence for the erection, use and occupation of premises as a slaughter-house for a period of every 12 months.

24. Licences for the erection, use and occupation of premises as a slaughter-house shall be renewable after a period of every 12 months.

25. A public or a duly licensed slaughter-house shall be kept open for use by the butchers during the summer and winter between such hours each day as decided by the local authority from time to time and the working hours of the slaughter-house heretofore decided shall be conspicuously marked, painted, or labelled suitably on or about the entrance gate of the slaughter-house.

26. Every owner or occupier of a slaughter-house shall at all reasonable times afford free access to every part of such premises to the Veterinary Surgeon, Medical Officer of Health, Meat Inspector, or other person or persons specially authorised by the local authority, for the purpose of inspecting the condition of the premises and the manner in which the business is being carried on, and for examining any carcass or portion thereof or any animal that may be found therein.

27. No person other than the Veterinary Surgeon, Medical Officer of Health, Meat Inspector, *bona fide* butchers or their assistants and servants, or any other person or persons especially authorised by the local authority as for example, persons, their staff and merchants duly authorised by them, who are interested in the grading and marking of hides, meat or other animal by-products, shall enter the slaughter-house premises during the process of slaughtering, skinning, dressing or cutting up carcasses.

28. The owner or occupier of every slaughter-house shall cause every animal brought to slaughter-house for the purpose of being slaughtered, and confined in any pound, stall, pen, lair or stable upon the premises previously to be slaughtered, to be provided during such confinement with sufficient quantity of wholesome water and if confined for more than twelve hours, to be provided with a sufficient supply of food.

29. Suitable arrangements shall be made for the proper care and food of the animals while in the waiting yard by the owners or butchers at their own expense or by the local authority at the expense of the owners or butchers.

30. The owner or occupier of every slaughter-house shall cause to be maintained, from day to day, a statement in a suitable record book or register showing clearly (a) the number and kind of animals received into the slaughter-house together with the names and addresses of the persons to whom the animals have been consigned, (b) class, age and sex of animal, (c) names and addresses of persons to whom the animals are sold, *i.e.*, the butchers, (d) the fees recovered therefrom, and (e) the results of meat inspection by the Meat Inspector, indicating grade if prescribed; and such a record book or register shall be open to the inspection of the Medical Officer of Health, Veterinary Surgeon, Meat Inspector or other person or persons authorised by the local authority in this behalf.

31. Every owner or occupier of a slaughter-house and every servant of such occupier and every other person employed upon the premises shall carry out the slaughtering work with as little pain or suffering to the animals as practicable, and shall use such instruments and appliances, adopt such methods and otherwise adopt such precautions as may be requisite to secure the infliction of as little pain or suffering as practicable; provided that this requirement shall not interfere with the religious susceptibilities of the persons engaged on the premises.

32. A person shall not, in the slaughter-house slaughter or cause or suffer to be slaughtered, any animal in view of another animal.

33. No animal other than those intended for slaughtering shall be allowed into the slaughter-house and no animal shall be kept in a slaughter-house for a longer period than may be necessary for preparing such animal for slaughter, and such period shall in no case exceed three days.

34. No animal which has been received into slaughter-house for the purpose of being slaughtered, shall be removed from the slaughter-house before being slaughtered, except with the consent of the Meat Inspector, Veterinary Surgeon or the Medical Officer of Health.

35. No animal shall be slaughtered except inside a slaughter-hall, or booth meant for the purpose.

36. The owner or occupier of a slaughter-house shall provide adequate number of hangers or pulleys for hanging the carcasses and facilitating dressing of the slaughtered animals.

37. An owner or occupier of a slaughter-house shall not cause or allow any blood or other refuse to flow from the slaughter-hall so as to be within the sight of any animal in the slaughter-house.

38. No air shall be blown by the mouth or in any other manner into the tissues of any carcass or part of a carcass slaughtered or prepared for human consumption.

39. The means of ventilation, drainage and lighting of every slaughter-house shall be kept in good and efficient order to the satisfaction of the local authority.

40. Every owner or occupier of a slaughter-house shall cause the means of water supply provided in or in connection with slaughter-house to be kept, at all times, in proper order and efficient action as may be approved by local authority, and shall provide for use on the premises a sufficient supply of clean water for the purpose of thoroughly washing and cleansing the floor or pavement, every part of the internal surface of every wall of such slaughter-house, and every utensil, vessel or receptacle which may be used for the collection and removal from such slaughter-house of any blood, manure, garbage, filth or other refuse or other refuse products of slaughtering or the dressing of any carcass on the premises.

41. (a) Every owner or occupier of a slaughter-house shall provide a sufficient number of vessels or receptacles, properly constructed of galvanized iron or other non-absorbent material, and furnished with closely fitting covers, for the purpose of receiving and conveying from such slaughter-house all manure, blood, garbage, filth, or other refuse products of the slaughter-house.

(b) All blood, manure, garbage, filth or other refuse from any animal slaughtered and the hide, fat, viscera and offal therefrom, shall be removed from the slaughter-house within 8 hours after the completion of the slaughtering of such animal, and in such manner and by such means as will not cause nuisance at the premises or in the public streets or elsewhere and as may be approved by the local authority.

(c) Every owner or occupier of a slaughter-house shall cause every such vessel or receptacle to be thoroughly cleansed immediately after such vessel or receptacle has been used for such collection and removal, and shall cause every such vessel or receptacle, when not in actual use, to be kept thoroughly clean.

(d) In a public slaughter-house any skin or entrails or offal not removed within the allotted time shall become the property of the local authority and shall be disposed of by them in such manner as deemed fit, provided that if they so prefer, they may delegate to the officer-in-charge of the slaughter-house power to have such skins, entrails or offal removed at the owner's or butcher's expense and the officer-in-charge may refuse to such butcher or owner or his servant any subsequent admission to the slaughter-house until such expense is made good to the local authority.

42. (a) Every owner or occupier of a slaughter-house shall cause every part of the internal surface of the walls and every part of the floor and pavement of such slaughter-house to be kept at all times in good order and repair, so as to prevent the absorption therein of any blood or liquid refuse or filth which may be spilled or splashed thereon, or any offensive or noxious matter which may be deposited thereon or brought into contact therewith.

(b) Every part of the internal surface above the floor or pavement of such slaughter-house shall be washed thoroughly with hot limewash at least once in every month.

(c) Every part of the floor or pavement of such slaughter-house, and every part of the internal surface of every wall on which any blood or liquid refuse or filth may have been spilled or splashed or with which any offensive or noxious matter may have been brought into contact during the process of slaughtering, dressing and cutting up in such slaughter-house, shall be thoroughly washed and cleansed within three hours after the completion of such slaughtering or dressing.

43. An owner or occupier of a slaughter-house shall not at any time keep any dogs, pigs or birds, or cause or suffer any dogs, pigs or birds to be kept in or to have access to such slaughter-house. The open area in a slaughter-house shall be covered by wire rope netting to prevent carrion birds from carrying away the material and dropping it in the vicinity of the inhabited area.

44. No person shall create any disturbance in the slaughter-house premises. Any person contravening this rule may be removed summarily under the direction of the Veterinary Surgeon, Medical Officer of Health, Meat Inspector or any other person appointed or employed by the local authority as in charge of such a slaughter-house.

45. No person affected with tuberculosis, or any other infectious or contagious disease, leprosy, sores or any skin disease shall enter the slaughter-house. A periodical medical inspection of butchers and flayers shall be obligatory.

46. No person shall rub or cause to be rubbed the inner sides of skins upon the ground within any portion of the slaughter-house. Hides and skins shall not be dragged within the slaughter-house premises except on the hair side.

47. No gut-scraping, tripe cleaning, manufacture or preparation of articles of food for man or for animals, household washing or work of any nature, other than is involved in the slaughter and the dressing of carcasses, shall be permitted in any slaughter-house except in the adjuncts to the slaughter-house intended for these purposes.

48. Fees shall be levied by the local authority for each animal slaughtered in a public slaughter-house.

PART V.—DUTIES OF BUTCHERS, SLAUGHTER-MEN*

49. Evidence of disease in a carcass shall not be modified or obliterated by washing, rubbing, stripping or in any other manner, except under the direct supervision of the Meat Inspector and in accordance with his instructions.

50. In no case shall the serious membranes (pleura and peritoneum) be stripped, except by or under the direction of the Meat Inspector, and in any such case in which immediate stripping is necessary to preserve the marketability of the carcass the membranes shall not be entirely detached from the carcass until the same have been examined by the Meat Inspector and he has authorised detachment.

51. Notification of intention to slaughter animals for emergency reasons shall be forwarded to the Veterinary Surgeon, Medical Officer of Health or Meat Inspector, and so far as practicable all such animals shall be examined at the

*For effectively carrying out the provisions laid down in rules in Part V it is necessary that Butchers and flayers should be licensed.

time of slaughter. If not so examined the carcass, with the whole of the viscera and all parts thereof attached thereto, shall be detained until examined by the Meat Inspector.

In cases where such an animal is examined at the time of slaughter, the Meat Inspector may require the carcass, the whole of the viscera and all parts thereof, unless obviously unfit for food, to be detained for 24 hours thereafter to enable a later inspection to be made.

All carcasses of such animals as may subsequently be passed for human consumption shall be ribbed or quartered before being released.

52. Any cloth or instrument that has been used on a tuberculous carcass or parts thereof, or on a carcass presenting lesions of other disease or suspected of being diseased, shall not again be used until it has been boiled for half an hour in water containing soda.

53. Where the carcass has not been examined by the Meat Inspector at the time of slaughter, the whole of the viscera, parts and organs thereof shall be kept, pending inspection, in such a way as to enable them to be identified, by labelling, or otherwise, with the carcass from which they have been removed.

54. No carcass or part thereof shall be removed, or, so placed as to prevent its ready identification, except with the authority of the Veterinary Surgeon, Medical Officer of Health or Meat Inspector.

PART VI.—GENERAL DUTIES OF AND INSTRUCTIONS TO MEAT INSPECTORS

55. It shall be the duty of the Meat Inspector appointed by the local authority in this behalf:—

- (a) to attend at the slaughter-house during the hours fixed;
- (b) to inspect animals ante-mortem according to the provisions in Part VII of the Rules;
- (c) to inspect animals post-mortem according to the provisions in Part VIII of these Rules;
- (d) to keep a record of the number and kind of animals slaughtered along with the number and kind of carcasses, parts and organs condemned for different diseases;
- (e) at the close of each day's work to see that the slaughter-house or slaughter-houses under him are thoroughly cleansed and disinfected and the condemned parts and organs duly destroyed and the offal removed to such places as may be appointed by the local authority; and
- (f) generally to enforce the provisions of these Rules.

56. Every effort shall be made to inspect the carcasses and viscera of all animals slaughtered. This examination shall be methodical and as complete as possible in all cases.

57. (a) The Meat Inspector shall have his own knives, wipes and instruments for examining carcasses and parts and organs thereof.

(b) Knives and other instruments that have been used for cutting or examining any diseased organ, gland or tissue shall not again be used for any purpose until they have been disinfected in boiling water or other suitable disinfectant.

58. The carcass of an animal that is free from disease, and the carcasses and organs which are well nourished, shall be passed, without any undue mutilation, as fit for human consumption.

59. When all portions unfit for human food have been removed from a carcass under the supervision of a Meat Inspector, the remainder of the carcass shall be passed as fit for human consumption.

60. If disease is found in any part of carcass or in any organ, the whole carcass and all the organs thereof shall be examined for evidence of any repetition of the local condition, or modification of the same in other parts, according to the plan outlined in Part VIII of these Rules.

PART VII.—ANTE-MORTEM INSPECTION

61. Where practicable it is desirable that all animals shall be inspected before slaughter, the object being to ascertain that each animal, which it is intended to slaughter, is in a satisfactory state of health. In cases of doubt as to the health of the animal the Meat Inspector shall notify the Veterinary Surgeon, if one has been appointed for that purpose, and his instructions will be observed. Where ante-mortem inspection of animals is not practicable or has not taken place, the butcher shall notify the Veterinary Surgeon or the Medical Officer of Health or Meat Inspector in any case in which he has doubt as to the health of the animal. Immediate steps shall be taken to have the animal examined before slaughter.

62. Such ante-mortem examination shall be made on the premises of the slaughter-house in which the animals are about to be slaughtered and should include:—

- (a) examination for evidence of cruelty to animals by over-trucking, over-driving or by other act;
- (b) examination for the detection of animals in very emaciated condition or affected with disease in any form.

63. All stock showing signs of pregnancy shall be rejected and removed from the slaughter-house after being marked with some distinguishing mark.

64. No animals with young at foot shall be permitted to be slaughtered.

65. No stock in a febrile condition shall be slaughtered for human consumption in any slaughtering place.

66. No stock showing ante-mortem symptoms of disease or suspected of being diseased shall be slaughtered until all other stock intended to be slaughtered at the slaughter-house on the same day have been slaughtered.

* * * * *

PART XV.—GENERAL

93. With the approval of the State Government any local authority may adopt the whole of this Memorandum, a part or parts, or any Clause or Clauses thereof for operation in the area under its jurisdiction, and may make any changes, alterations or additions to suit their local conditions.

PENALTY CLAUSES

1. If the owner or occupier of a slaughter-house is convicted of an offence under any of the foregoing rules relating to the conduct of business of a slaughter-house given in Part IV of the model rules, the local authority may cancel the licence for such slaughter-house.

2. If any person obstructs an officer in the performance of his duty under any warrant for entry into the premises used as a slaughter-house, he shall, if the court is satisfied that he obstructed with intent to prevent the discovery of an offence under any of the rules relating to the conduct and regulation of business of the slaughter-house, or if he has within twelve months previously been convicted of such obstruction, be punished with imprisonment which may extend to three months or with fine which may extend to five hundred rupees.

3. Any person offending against any of the provisions in Parts IV, V, X* and XI* of the rules shall, where no punishment is expressly provided, be punished with fine which may extend to twenty-five rupees for the first offence and fifty rupees for the second offence. For the third or subsequent offence, he shall be punished with fine which may extend to one hundred rupees or imprisonment which may extend to two months.

*Not reproduced here.

F O R M A

(See rule 21)

FORM OF APPLICATION FOR A LICENCE FOR THE ERECTION, USE
AND OCCUPATION OF PREMISES AS A SLAUGHTER-HOUSE.

To

The.....

I, son of
 caste....., age, of.....
 do hereby apply to you for a licence for the purpose of erection, use and occu-
 pation of certain premises as a slaughter-house for a period of.....,
 and I do hereby declare that to the best of my knowledge and belief the particu-
 lars hereunto annexed contain a true statement of the several items therein set-
 forth with respect to the said premises.

PARTICULARS

1. Boundaries, area, description and situation of the proposed site to be erected for use and occupation as a slaughter-house.....
2. The owner of the premises: Name, Father's name, Caste, Address and Domicile.....
3. Nature and conditions of applicant's tenure of premises: (a) For what term, and whether by lease or otherwise; (b) whether applicant is sole owner, lessee, or tenant; or whether the applicant is jointly interested with any other person or persons, and if so, with whom.....
4. The species of animals which it is intended to slaughter in the premises.....
5. The method of slaughtering to be adopted, and the names of instruments to be used for the purpose.....
6. Description of the premises:—
 - (a) Nature, position, form, superficial area and cubical contents of the several buildings therein comprised.....
 - (b) Extent and nature of the paved area in the buildings and material employed in paving.....
 - (c) Mode of construction of the internal surface of the walls of such buildings and the materials employed in such construction.....
 - (d) Means of water supply, position, form, material, mode of construction and capacity of the several cisterns, tanks, or other receptacles for water constructed for permanent use in or upon the premises.....
 - (e) Means of drainage, position, sizes, materials and mode of construction of the several drains.....
 - (f) Means of lighting and ventilation.....
 - (g) Roofing, doors and gates.....
 - (h) Whether the slaughter house is fly-proof.....
 - (i) Means of access for animals to be slaughtered in the premises from the nearest street or public thoroughfare.....
 - (j) Number, position and dimensions of the several ponds, stalls, pens or lairs, provided in the premises.....
 - (k) Number of Animals for which accommodation will be provided in such pounds, stalls, pens or lairs, distinguishing:—
 - (1) Cattle.....
 - (2) Sheep and Goats.....

- (3) Swine.....
 (4) Horses.....

*Insert the name and address of the Local Authority.

Signature of the applicant.

Permanent Address

Date.....

NOTE.—Attach to this application form of the plan of the proposed premises to be used as a slaughter-house.

F O R M B

(See rule 22)

FORM OF LICENCE FOR THE ERECTION, USE AND OCCUPATION OF PREMISES AS A SLAUGHTER-HOUSE

No. of Licence.....

Reference.....

.....*of.....†
 WHEREAS application has been made to us, the.....*,
 by....., son of....., caste.....,
 age....., of....., for a
 licence for the erection, use and occupation of certain premises as a slaughter-
 house:

Now, we the said....., do hereby licence the said.....
, son of....., caste.....
, age.....of.....,
 to use and occupy as a slaughter-house the premises whereof the situation, des-
 cription, etc., are set forth in the particulars hereunto annexed:—

PARTICULARS

1. Situation of the premises to be used and occupied as a slaughter-house

2. Description of the premises.....
3. The species of animals for the slaughter of which the premises are to
 be used as a slaughter-house.....
4. Method of slaughtering to be adopted.....
5. Number of animals for which accommodation is provided:—
 - (a) Cattle.....
 - (b) Sheep and Goats.....
 - (c) Swine.....
 - (d) Horses.....

Given under the Common Seal of.....

Date.....

SEAL

Signature of the Secretary.

.....

*Name and address of the local Authority.

†Place and district.

APPENDIX XIV
LIST OF GAMES SANCTUARIES IN INDIA

Name of the State	Game sanctuaries
1. Madras	Madumalai Sanctuary in the Nilgris District.
2. Ajmer	Dadalia Game Sanctuary in Todgarh Range Forest.
3. P.E.P.S.U.	Nine in Patiala District; one in Kapurthala and one in Sangrur District.
4. Assam	Two in Sibsagar District; one in Kamrup District; one in Darang District; one in North Lakhimpur District; and one in Nowgong District.
5. Hyderabad	Two in Warangal District; and one in Madak District.
6. Orissa	Two in Puri Division; one in Angul Division and one in Barpahar Division.
7. Bihar	Two in Hazarbagh District. Three in Singhbhum District. One in Palamau District.
8. Punjab	One in Gurdaspur District. One in Simla District. One in Hissar District. One in Amritsar District. One in Kangra District.
9. Vindhya Pradesh	One in Panna Division and one in Rewa Division.
10. West Bengal	One in Cooch Behar District. Two in Jalpaiguri District. One in Darjeeling District, and one in 24-Parganas.
11. Mysore	Bandipur Game Sanctuary and Jaggar Valley Sanctuary.
12. Manipur	Keibul Lamjao Game Sanctuary to the South West of Imphal.
13. Uttar Pradesh	One in Saharanpur Forest Division. One in Dehra Dun Forest Division, one at Pilang. One at Jangla and Harsil, one at Patangni, one at Yamnotri. One at Obraged and one in Kumaon Division.
14. Travancore-Cochin	Pariyar Game Sanctuary in Kottayam District.
15. Jammu and Kashmir	Four in Kashmir Division and one in Jammu Division.
16. Coorg	One comprising whole of Arkeri Halghat and Nalkeri Reserve Forest.
17. Rajasthan	One in Kotah Division, one in Jaipur Division, three in Bharatpur Division.
18. Bombay	Dandeli Game Sanctuary in North Manra District is being established.
19. Madhya Bharat	One in Mandla District, and one in Chānda District.

Besides the above game sanctuaries, there is one National Park in India. It is situated in the State of Uttar Pradesh and is known as the Hailey National Park and comprises an area of about 120 sq. miles.

APPENDIX XV

PERFORMING ANIMALS (REGULATION) ACT, 1925, ENGLAND, WALES AND SCOTLAND

This Act shall apply to England and Wales. It shall also apply to Scotland with some modifications.

Definition.—"Animal" does not include invertebrates.

"Exhibit" means exhibit at any entertainment to which the public are admitted, whether on payment of money or otherwise, and "train" means train for the purpose of any such exhibition.

1. *Restriction on Exhibition and Training of performing animals.*—(1) No person shall exhibit or train any performing animal unless he is registered in accordance with this Act.

(2) Every local authority shall keep a register for the purpose of this Act, and any person who exhibits or trains animals as aforesaid on making an application in the prescribed form to the local authority of the district in which he resides, or if he has no fixed place of residence in Great Britain, to the local authority of such one of the prescribed districts as he may choose, and on payment of the prescribed fee shall be registered under this Act, unless he is a person, who, in pursuance of an order of the court made under this Act, is prohibited from being so registered.

(3) Any application for registration under this Act shall contain such particulars as to the animals and as to the general nature of the performances in which the animals are to be exhibited or for which they are to be trained as may be prescribed, and the particulars so given shall be entered in the register.

(4) The local authority shall give to every person whose name appears on the register kept by them a certificate of registration in the prescribed form containing the particulars entered in the register.

(5) Every register kept under this Act shall at all reasonable times be open for inspection on payment of the prescribed fee, and any person shall on payment of the prescribed fee be entitled to take copies thereof or make extracts therefrom.

(6) Any person entered on the register shall, subject to the provisions of any order made under this Act by any court, be entitled, on making application for the purpose, to have the particulars entered in the register with respect to him varied, and where any such particulars are so varied, the existing certificate shall be cancelled and a new certificate issued.

(7) A copy of every certificate of registration issued by a local authority shall be transmitted by the authority to the Secretary of State and shall be available for inspection at all reasonable times subject to payment of the prescribed fee.

2. *Power of Courts to prohibit or restrict Exhibition and Training of performing Animals.*—(1) Where it is proved that the training or exhibition of any performing animal has been accompanied by cruelty and should be prohibited or allowed only subject to conditions, the person complained against may be prohibited from training or exhibiting the animals or such conditions as may be considered necessary may be imposed upon him.

(2) Any court by which an order is made under this section shall cause a copy of the order to be sent as soon as may be after the order comes into force to the local authority by which the person against whom the order is made is registered and to the Secretary of State, and shall cause the particulars of the order to be endorsed upon the certificate held by that person, and that person

shall produce his certificate on being so required by the court for the purposes of endorsement. A local authority to which a copy of an order is sent under this section shall enter the particulars of the order on the register.

3. *Power to enter premises.*—(1) Any officer of a local authority duly authorised in that behalf by the local authority and any constable may—

- (a) enter at all reasonable times and inspect any premises in which any performing animals are being trained or exhibited or kept for training or exhibition, and any such animals found therein; and
- (b) required any person who he has reason to believe is a trainer or exhibitor of performing animals to produce his certificate.

(2) No constable or such officer as aforesaid shall be entitled under this section to go on or behind the stage during a public performance of performing animals.

4. *Offences and legal proceedings.*—(1) Any offence against this Act shall be punishable with a fine not exceeding fifty pounds.

(2) Where a person is convicted of an offence against this Act, or against the Protection of Animals Act, 1911, as amended by any subsequent enactment, the court before which he is convicted may in addition to or in lieu of imposing any other penalty:—

- (a) if such person is registered under this Act, order that his name be removed from the register; and
- (b) order that such person shall either permanently or for such time as may be specified in the order be disqualified for being registered under this Act.

5. *Expenses.*—Any expenses of a local authority under this Act, so far as not covered by fees, shall be defrayed in the case of the common Council of the City of London, out of the general rate; in the case of the council of a county borough, out of the borough fund or borough rate; and in the case of the council of a county, out of the county fund; and the fee for registration shall in no case exceed one guinea.

सत्यमेव जयते

APPENDIX XVI
LIST OF ZOOS IN INDIA

Sl. No.	Name of the Zoo	Administrative Control
1.	Peshwa Park, Poona.	Poona Municipal Corporation.
2.	Victoria Garden Zoo, Bombay.	Bombay Municipal Corporation.
3.	Zoological Hill Garden, Ahmedabad.	Ahmedabad Municipal Corporation.
4.	Sayaji Rao Garden Zoo, Baroda.	Baroda Borough Municipality.
5.	Public Gardens Zoo, Hyderabad (Dn.)	Local Department, Government of Hyderabad.
6.	Maharaj Bag Zoo, Nagpur.	Agriculture Department, Government of Madhya Pradesh.
7.	P. W. Zoological Gardens, Lucknow.	Public Health Department, Government of U. P.
8.	Zoological Gardens, Madras.	Corporation, Madras.
9.	Shri Chamarajendra Zoological Gardens, Mysore.	Home, Agriculture and Forest Deptt., Government of Mysore.
10.	Zoological Gardens, Junagadh.	Education Department, Government of Saurashtra.
11.	Zoological Gardens, Calcutta.	Agriculture and Forest Deptt., Government of West Bengal.
12.	King George Zoological Park, Lashkar (Gwalior).	City Municipality, Gwalior.
13.	Zoological Gardens, Trivandrum.	Education Department, Government of Travancore-Cochin.
14.	Zoological Gardens, Trichur.	
15.	Zoological Gardens, Jaipur.	Forest Department, Government of Rajasthan.
16.	Zoological Gardens, Kota.	
17.	Zoological Gardens, Jodhpur.	
18.	Zoological Gardens, Bikaner.	
19.	Zoological Gardens, Udaipur.	
20.	Delhi Zoological Park, New Delhi.	Ministry of Agriculture, Government of India.

APPENDIX XVII

EXPORT OF MONKEYS DURING THE YEARS 1951-52, 1952-53, 1953-54, 1954-55, 1955-56, 1956-57 (APRIL—JUNE)

Quantity in Nos.

Value in '000 of Rs.

Countries	1951-52		1952-53		1953-54		1954-55		1955-56		1956-57 (April—June) only.		
	Nos. 2	Value 3	Nos. 4	Value 5	Nos. 6	Value 7	Nos. 8	Value 9	Nos. 10	Value 11	Nos. 12	Value 13	Value 13
U. S. A.	..	40,749	324	13,026	197	13,229	239	87,517	1,575	92,861	2,258	47,121	1,453
Canada	..	50	1	115	2	50	1	100	1	14,700	365	4,800	170
Iceland	36	*	..	..	..	..	..	..
Singapore	12	*	..	..	..	..	..	..	..	..
Australia	..	89	..	86	1	60	5	52	3	1,110	28	300	8
Denmark	..	412	5	328	4	451	1,883	1,883	32	850	23	473	15
Netherlands	..	761	8	384	4	375	7	363	5	..	..	..	..
Newzealand	24	*	..	..	..	..	..	..	..	..
Germany West	..	172	3	548	6	1,036	11	4,424	66	1,764	40	470	14
Sweden	*	24	*	50	1
Switzerland	..	2	1	25	*	..	..	4	*	..	..	40	1
Ceylon	1	*	..	..	..	..	..	..	..	..
Italy	..	1,003	8	250	4	380	12	212	5	80	5	285	8
Mozambique	10	*	..	..	..	..	..	..	..	..
Belgium	..	340	4	454	5	385	5	180	3	..	..	19	1

APPENDIX XVII—concl.

1	2	3	4	5	6	7	8	9	10	11	12	13
Japan	32	4	176	7	75	1	..	..	..	..
U.K.	..	3,530	19	422	6	307	3	5,010	111	4,438	126	2,275
Pakistan	..	12	*	..	..	..	..	..	..	..	..	..
Thailand	..	50	*	..	..	..	..	..	..	..	..	..
Poland	..	15	*	..	..	..	..	..	124	3	..	..
Israel	2	*	..	..	..	..	202	5
Turkey	30	5	..	..	..	..	..	..
Burma	4	*	..	..	..	..	..	..
Czechoslovakia	6	*	..	..	..	..	..	..
Austria	10	*	345	10	..	..
Brazil	60	1	..	..	..	..	..	..
Saudi Arabia	500	15	..	..	..	..
TOTAL	..	47,185	3,73	15,753	233	16,281	297	100,330	1,815	116,296	2,858	56,035
												1,802

*Negligible.

APPENDIX XVIII

EXPORT OF DIFFERENT KINDS OF ANIMALS (OTHER THAN MONKEYS) FROM INDIA

Qty. in Nos.
Value in '000 of Rs.

Years	Cattle (excl. Sheep & Goat)						Horses		Sheep & Goat		Other Kinds		Total			
	Qty.		Val.		Qty.		Val.		Qty.		Val.		Qty.		Val.	
	(i) By sea															
1950	243	270	6	7	71,798	3,530	481,548	1,246	553,595	5,053				
1951	169	62	12	76	73,353	3,469	289,749	1,141	363,283	4,748				
1952	13	6	32	46	79,990	3,831	203,167	1,242	583,202	5,125				
1953	243	270	..	..	56,876	3,078	432,712	1,357	497,633	4,835		
1954	25	19	38	95	48,561	2,560	449,484	1,626	560,867	5,396				
1955	746	584	7	22	37,173	2,032	370,625	1,030	529,942	6,384				
1956 (Jan./June)	476	439	1	2	17,800	996	225,245	555	340,513	4,831				

EXPORT OF DIFFERENT ANIMALS (EXCLUDING CATTLE, HORSES, MONKEY, SHEEP AND GOATS)

Years	Quantity (Nos.)	Value ('0000 Rs.)	Transfer
1950	..	11,002	14
1951	..	12,627	113
1952	..	12,520	113
1953	..	20,890	213
1954	..	25,465	426
1955	..	13,223	37
1956 (Jan./June)	..	13,386	23



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